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ABSTRACT

This guide is designed to assist business teachers to effectively use simulations that involve student interaction. Learning experiences in all levels of business and office education are examined: business exploration, basic business, and occupational preparation. In the introduction, the types of simulated activities are explained, along with their use. The guide is divided into two major sections: simulation games and model office simulations. In the Simulation Games section, the value of these games is discussed. Also, the ways in which to select, use, adapt, develop, and evaluate simulation games are considered. A selected bibliography of books and articles on simulation games and descriptions of simulation games (containing source, subject, grade level, playing time, number of participants, cost, and game description) are included. In the Model Office Simulations section, flow-of-work competencies are explained. The selection, use, development, and evaluation of these simulations are examined. The model office facility area contains basic guides to follow in designing a modern office and several suggested layouts. A selected bibliography of articles describing unpublished model office simulations include the type of business, suggested occupational positions, data or transaction input, equipment needed, forms provided, duration of the simulation, source, and author. (Author/CT)

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simulation

IN BUSINESS AND OFFICE EDUCATION

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FOREWORD

Large increases in the number of employees needed for business and office occupations are projected during the next decade. Business education in high schools is the backbone of the program to prepare individuals for these occupations.

The effectiveness of the educational process must continually be improved to meet new demands for office employees. This guide is designed to help experienced and inexperienced teachers improve their teaching procedures. Included are suggestions for the use of simulation as a teaching technique. The suggestions are applicable to occupational preparation classes as well as basic business and business exploration classes.

All teachers of business and office education are urged to exercise their creative efforts to adapt and expand the suggestions included in the guide as they seek to meet the individual needs of students.

W. E. Campbell, Superintendent of
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STATEMENT OF PURPOSE

To achieve the objectives of business and office education, a variety of teaching methods and materials have been used. A recognized basis for occupational preparation has been the use of "real life" activities performed by students under supervision. More recently, simulations that involve student interaction and, hence, simulate the interrelationships of the "real world" have gained importance as an instructional method.

The purpose of this guide is to assist business teachers to effectively use simulations that involve student interaction. These simulations can provide valuable learning experiences for students at all levels of business and office education—business exploration, basic business, and occupational preparation. The guide presents the following:

1. A description of the general purposes and specific objectives for using simulations in business and office education.
2. Procedures for selecting and using simulations that involve student interaction.
3. Guidelines for the development and adaptation of such simulations.
4. A description of the model office facility with suggestions for the use of simulations in this facility to enhance the occupational preparation program.
5. Descriptions of simulation games and model office simulations that are available and appropriate for business and office education instruction.

This guide details the many considerations applicable to the use of simulations. Business educators have expressed an interest in this method of instruction for some time and numerous simulations have been developed and used by Virginia business teachers. Practical suggestions are provided to help the business teacher successfully use simulations to achieve desired results.

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INTRODUCTION

Real world competencies can be effectively developed through the use of simulations.

Simulations have emerged as an effective tool for meeting the needs of students in business and office education. They can provide the opportunity for students to develop, in addition to basic office skills, such needed skills as organization ability, decision-making, listening, priority setting, and interpersonal relations. Simulations can, further, serve as a strong motivational device and can help students develop a sense of responsibility toward their work. In other words, simulations enable students to gain the competencies they will need to function effectively in the office occupations of their choice as well as in other real world situations.

A basic psychological premise of learning is that the more similar the learning situation to the real life situation in which the learning will be used, the greater the transfer of the learning. Therefore, as the simulated situation increases in the elements, aspects, and characteristics of the real situation, the likelihood of learning transfer increases. As the student progresses in school, instructors must attempt to have the student use previously acquired skills and knowledges in an environment that requires their application as they will ultimately be used.

According to Lewis and Wentworth, a simulation attempts to model a portion of reality in an artificial setting. The social, economic or political processes of a particular system of interactions are reproduced by students assuming roles in the system and trying to understand how the system operates.[1] Popham, Schrag, and Blockhus more simply identify simulation as a reproduction of a real situation that contains elements necessary to the educational goals of the learner.[2]

Students in the business classroom or laboratory may engage in a variety of simulated activities. These activities may be categorized as follows:

1. **Simulation Games**—Blucker describes games as contests conducted according to a set of rules and undertaken in the classroom to achieve educational objectives as well as for enjoyment.[3] Lewis and Wentworth note that a simulation game tries to use the role-playing modeling features of simulation for learning how a system operates and the competitive nature of games to encourage motivation. Generally, emphasis is on the decision-making process. The "winner" may well be the one or the team that performs best against a computer program. Simulation games are appropriate for any educational setting where motivation, involvement, and application of previously learned principles is desired.[4]
2. **Task Simulation**—Instructional materials generally contain problems that require students to concentrate on the use of one skill or area of learning in a given situation. Task simulations, sometimes called integrated exercises, however, require the simultaneous use of two or more separate skills. As a result, students are asked through such exercises to meaningfully combine and apply previous learnings. For example, the task simulation may require the student to combine computational, typing, and filing skills in one exercise. Task simulations serve as appropriate vehicles for helping students take the first steps toward learning to use business skills as they are used in an office.
3. **Position (job) Simulations**—Just as the name implies, for position or job simulations, students must integrate and apply the numerous skills required of a particular job. Simulations are available for such jobs as payroll, mail, or insurance clerk. Position simulations should be used to build on task simulations and can provide students with an opportunity to apply previously learned skills to the requirements of a particular job. The more closely the simulation approaches the actual requirements of the job, the more realistically the student will learn to integrate previously learned skills and knowledges.
4. **Model Office (Flow-of-Work) Simulations**—A model office simulation integrates the position simulation activities of more than one job. Full-scale model office or flow-of-work simulations provide for the realistic blending of skills, office personalities, and outside influences as found in the actual job situation. They involve not only the application of skills to office tasks but also the interaction between and interdependency among people in a business office. Jones has identified a number of reasons for using model office simulations:[5]

[1] D. R. Lewis and D. Wentworth, *Games and Simulations for Teaching Economics* (New York: Joint Council on Economic Education, 1971) p. 2.

[2] E. Popham, A. Schrag, and W. Blockhus, *Teaching-Learning System for Business Education* (New York: McGraw-Hill Book Company, 1975) p. 139.

[3] Blucker, *An Annotated Bibliograph[y] of Games and Simulations in Consumer Education* (Springfield, Illinois: Office of the Superintendent of Public Instruction, 1973.)

[4] Lewis and Wentworth, op. cit.

[5] A. D. Jones "Evaluating the Office Laboratory," *The Balance Sheet*, LV (October, 1973), pp. 62-63, 90.

- Understanding of on-the-job requirements comparable to that obtained in a cooperative education program
- Development of self-direction in the performance of office tasks
- Development of initiative and a sense of responsibility for quality and quantity of production
- Understanding of the relationships among different work stations of an organization—an understanding of flow-of-work
- Development to occupational standards, or higher, skills and knowledges previously learned.

On page 3, a brief description of each type simulation discussed above along with suggested uses is provided.

The business and office curriculum offers unlimited opportunity for the instructor to provide the student with simulated learning experiences. These should begin in the basic and exploratory courses and continue through the most advanced courses. Involvement in simulation activities can build from simple role-playing situations to task simulations to position simulations and ultimately to model office (flow-of-work) simulations.

The use of simulations provides an approach that can enhance learning. Simulations should not be viewed as a panacea to all instructional problems. However, they should be viewed as a viable way to help students learn to perform in the real world situations they will encounter. Furjanic states, "Research has proved that both simulations and games do teach and that students find learning through these approaches more enjoyable than that accomplished by means of traditional teaching methods."[6] Further, based on a study designed to compare the traditional method of teaching office practice with a method based on a model office simulation, Nelson concludes that the latter method could be considered more effective in developing attitudes and personality traits specifically identified in the literature as being of importance to office workers.[7]

The simulations labeled in this introduction as task and position have already gained widespread acceptance and are used extensively by many business teachers. In fact, simulations of these two types are major instructional tools of the office occupation preparation programs scheduled for a block of time. The authors have not, therefore, addressed the information in this guide to these two types of simulations.

The guide is designed to assist the business teacher in selecting, using, developing, and evaluating simulation games and model office (flow-of-work) simulations. Due to the complexity of the problems that can develop when students have an opportunity to interact with one another, teachers are often reticent to try either simulation games or model office simulations. This very feature of student interaction, however, is why these two types of simulations have so much potential for student benefit. In them, all aspects of the environment in which the learning will ultimately be used can be simulated.

This guide is intended to provide the impetus needed by many business teachers to try simulation activities that include student interaction in their classes. Such simulations can serve as appropriate instructional vehicles for business exploration, basic business, and occupational preparation offerings—in other words, for any business offering. The ultimate effectiveness of any simulation, however, depends on the commitment of the teacher to its use.

[6] S. W. Furjanic, "Simulation and Games: One Answer for General Business," *Business Education World*, LVI (November-December, 1975), p. 5.

[7] F. E. Nelson, "Simulation and the Total Office Worker," *Business Education Forum*, XXVII (March, 1972), pp. 32-34.

DESCRIPTION AND USE OF SIMULATION MATERIALS

TYPE	BRIEF DESCRIPTION	WHEN USED
1. Simulation Game	Competition with self or others undertaken to achieve educational objectives as well as for enjoyment. Role-playing or modeling features of simulation are used to learn how a system operates and to develop strategies for decision making. Student interaction optional.	To motivate and to involve students in the application of previously learned principles.
2. Task Simulation	Requires the integration and realistic application of two or more previously learned skills. Student interaction optional.	To provide initial opportunity for the application of skills in a realistic situation.
3. Position (Job) Simulation	Requires the integration and application of the numerous skills required of a particular job. Student interaction optional.	To allow for the integration of knowledges and skills as required for a given job.
4. Model Office (Flow-of-work) Simulation	Integrates the position simulation activities of more than one job. Student interaction required.	To provide for the realistic blending of skills, personalities, and outside influences as found in the actual job situation.

SIMULATION GAMES

Simulation games provide a learning experience in an atmosphere of fun—fun for both students and teacher.

The word *game* has been used for years to mean a form of playful activity, often a contest governed by a set of rules agreed upon before play begins. The word *game* connotes fun; and for this reason, games are usually enjoyed by students as a change from traditional classroom routines.

The word *simulation* may be defined briefly as a simplified model of the real world, a representation of some real-life activity. This emphasis on "real-life activity" spells relevance to students, and the idea of relevance is an important aspect of business and office education offerings.

A *simulation game*, then can be a valuable and motivational classroom exercise, a learning experience that can convey to students some information about reality and convey it in an atmosphere of fun, a "contest" setting. Simulation games provide enjoyment while emphasizing learning. They are a powerful teaching device, a device which can make teaching efforts more effective and therefore more rewarding.

Simulation games represent an "experiential" teaching technique, one which generates experience within the classroom. Other familiar experiential teaching techniques include role playing and sociodrama. Experiential teaching techniques can be used to relate activities within the school to reality outside.

According to Heyman, the use of simulation games offers the following advantages:[1]

1. The learning that occurs in a simulation is based upon experience, because participants *do* things; there is little opportunity for inaction in a simulation.
2. Simulation games are fun. The idea of entering an activity where "almost real" decisions are made, where players are participating on a fairly equal basis—no matter what their past education or achievements—is very exciting to most students.
3. The total involvement of the participants in what they are doing makes simulations excellent motivators.
4. Simulation games contribute to young people's learning in the affective domain.
5. The wheeling and dealing that simulations require give students intensive practice in verbal and written communication.
6. There is something in a simulation game for everyone, even in a large and heterogeneous class. Participants play at their own level and no one is handicapped by lack of previous education or experience.

Heyman[2] notes that difficulties encountered in the use of games are few and are of less importance than the advantages encountered in their use. Consideration must be given by the teacher to selecting the appropriate game from the over 600 on the market, to becoming thoroughly familiar with the game selected, to developing procedures for classroom control in that simulations will generate more noise than traditional classroom activities, and to integrating the simulation game with other instructional content.

While simulation games may be profitably incorporated into almost all phases of business and office education, they seem best suited to developing attitude, economic understanding, decision-making, and social responsibility competencies. Teachers who are willing to stop telling students about business and who are willing to allow students to discover concepts for themselves will enjoy the use of simulation games in their classrooms.

[1]Mark Heyman, *Simulation Games for the Classroom* (Bloomington, Indiana: The Phi Delta Kappa Educational Foundation, 1975), pp. 17-18.

[2]Ibid., pp. 19-20.

SELECTING SIMULATION GAMES

An appropriate simulation game will be realistic, further course objectives, and be playable.

Zukerman and Horn indicate that simulation games may seem less approachable than other kinds of teaching materials. They state that the successful use of simulation games depends on a high degree of student cooperation. The many variables involved in their use, if not properly controlled, can result in a chaotic classroom situation.[1] Only through proper selection of the games will involvement and meaningful experiences for students of every ability level result.

A large number of simulation games are available and the selection process, although often difficult, should be based upon sound judgment. Furjanic provides the game evaluation chart on page 6 to aid in the selection process.[2]

Furjanic's chart requires "yes" or "no" answers to a number of specific questions about the simulation game under consideration. A space is provided for noting any modifications deemed possible. The chart can be effectively used to choose among the various games that are available. Games receiving many checkmarks in the "yes" column would, naturally, be more desirable than games receiving many "no's."

Smey feels that the playability or workability of a simulation game is of vital importance to a classroom teacher. She suggests that the smooth operation of a game depends greatly on the simplicity of the design and on the following characteristics:[3]

1. The physical equipment should not be cumbersome or impractical.
2. The rules should be stated as clearly and as simply as possible.
3. The rules should be complete and self-contained.
4. The game should not overtax the player's span of attention.

Game validity is also an important factor to consider. Smey notes that in order for a simulation game to have a desirable educational effect upon its participants, the game must bear a relationship to the real situation it simulates. The stronger the relationship, the greater the degree of validity.[4]

Guidelines, which Smey identifies, that can be used to determine whether a relationship exists between the simulation game and the real world follow:[5]

1. The simulation appears reasonable or has face validity.
2. Component units and their characteristics as defined in real life should parallel those entered in the simulation.
3. The omissions and additions required by the simulation mode do not interfere with the simulation process.

McDonald offers the three evaluation guides below to assist business teachers in their selection of commercial simulations for use in their classrooms:[6]

GUIDE I

1. Does it work?
2. Do participants want to play?
3. Do participants know what the simulation is supposed to teach them?
4. Is it worth it? Would other procedures work as well with less time cost to the teacher?

GUIDE II

1. Who is the simulation designed for?
2. How can you tell that the simulation is designed for the group that is supposed to play it?
3. Does it have congruence with referent model? (Does it simulate the intended real world situation?)
4. Are the rules clear?
5. Do participants have options and decisions to consider during play?
6. Are performance expectations observable or measurable?
7. Is there consistency between objectives, procedures, and the evaluation mechanism?
8. Can evaluation be conducted during the operation of the simulation or after?
9. Are participants likely to be actively involved in the simulation process?

GUIDE III

1. Are the necessary components for play included in the simulation package?
2. Does the simulation have ample consideration for the ability and interest level of the intended participants?
3. Will the dynamics of the simulation draw the participants into the action?

[1]David W. Zukerman and Robert E. Horn, "Getting into Simulation Games," *Media and Methods*, IX (November, 1972), p. 65.

[2]Sheila W. Furjanic, "Simulations and Games: One Answer for General Business," *Business Education World*, LVI (November-December, 1975), p. 8.

[3]Barbara A. Smey, "Guidelines in Selecting Simulation Games for Classroom Use," *Virginia Resolves I*, (1976), pp. 4-5.

[4]*Ibid*., p. 5.

[5]*Ibid*., p. 5.

[6]Robert H. McDonald, "Evaluation Guides for Simulation Selection," *Virginia Resolves I*, (1976), p. 22.

GAME EVALUATION CHART*

QUESTION	YES	NO	POSSIBLE GAME MODIFICATIONS
WHAT IS THE CENTRAL PROBLEM OF THE GAME?			
Are the educational objectives clearly defined?	____	____	_____
Do the objectives relate to the course content?	____	____	_____
Do the objectives relate to the real world?	____	____	_____
WHAT ARE THE ACTIVITIES AND CHOICES AVAILABLE TO PLAYERS?			
Do students have an opportunity to make basic strategy decisions?	____	____	_____
Is the game free of too much chance input?	____	____	_____
If the game provides for physical activity, does this activity fit your class management style?	____	____	_____
Does the strategy for winning correspond to the educational objectives?	____	____	_____
ARE THE RULES CLEAR AND USABLE?			
Are the rules aimed at the level of student who will be playing the game?	____	____	_____
If the players have difficulty understanding the rules, can the rules be "taught" in order to facilitate playing?	____	____	_____
DO THE LOGISTICS OF THE GAME FIT YOUR STYLE OF CLASS MANAGEMENT?			
Whether you prefer working with small groups or one large group, is that preference provided for?	____	____	_____
Are all players allowed to participate actively?	____	____	_____
WHAT SUMMARY ACTIVITIES CONCLUDE THE GAME?			
Do summary activities relate directly to the educational objectives?	____	____	_____
Are there opportunities for students to generalize on their moves or choices beyond the scope of their participation in the game?	____	____	_____
Will the time invested in the game yield a worthwhile amount of learning? (Or can the concepts involved be better taught in another way?)	____	____	_____

*Sheila W. Furjanic, "Simulations and Games: One Answer for General Business," *Business Education World*, LVI (November-December, 1975), p. 8

The selection of an appropriate simulation game is a most important prelude to the successful use of the game in a business classroom. Without a thoughtful selection process, a game, while it may be exciting and may provide good fun for the class, will probably contribute little toward the achievement of course objectives.

If a simulation game is to fulfill its primary classroom purpose, it must provide both a sound and an interesting learning experience for the students. Selecting an appropriate simulation game can be quite a challenge and quite a responsibility for a business teacher. Only the teacher can make the final decision as to whether any particular game has the qualities or lacks the qualities needed to promote the objectives of the course and to stimulate the learning of the students.

Using Simulation Games

The four major steps in using a simulation game in a business classroom are

- **teacher preparation**
- **pre-game orientation**
- **game operation**
- **post-game discussion.**

Simulation games can be effectively used at both the beginning and the end of a unit of study. Game activity creates interest at the beginning of a unit. Further, it leads students to study harder if they feel that doing so will assist them in playing the game more successfully at the end of a unit. Using the game as an ending activity means that it may also be used to evaluate the students' understanding of whatever they are expected to learn.

A game played at the beginning of a unit may set the mood for the entire unit, may stimulate interest in the topic, and may give students a base of experience they can call upon during the study of the unit. A game played only at the end of a unit is usually better played since students bring with them a knowledge base upon which to make game decisions thus making the play more realistic and possibly avoiding frustration among the participants. These factors should be considered if time permits only one playing of the simulation game.

Whenever a game is used, though, sound advice is to quit playing at the peak of interest. Any activity, no matter how exciting, will become boring if carried on for too long a period of time.

The successful use of a simulation game in a business classroom consists of four parts: teacher preparation, pre-game orientation, game operation, and post-game discussion.

Teacher Preparation. Once a simulation game has been selected, the teacher can prepare to use the game by following the suggestions below adapted from suggestions prepared by Koeninger.[1]

1. **Review the instructor's guide.** Thoroughly review the game materials noting the objectives, the constraints of the game, the equipment and supplies needed, the facilities required, and the like.
2. **Review the package components.** Become knowledgeable about all instructional activities prior to their classroom application.
3. **Conduct a "trial run."** Play out the simulation game to become familiar with its "ins and outs." A group of teachers might participate in portions of the game activity. If time is not available to play the entire game at least "walk through" the materials.
4. **Evaluate the trial run.** Rate the simulation game in light of the instructional objectives, its suitability to the students who will be using it, and the operational difficulty of the package. Modify as deemed appropriate.
5. **Determine the basis for role assignments.** Assign students with challenging roles but ones that they can handle without the threat of total failure. Some teachers prefer to assign roles randomly; however, the success of the activity many times depends upon the student's ability to fulfill the responsibilities of a role. Therefore, experiment and observe which assignment basis is best for the students involved.
6. **Reproduce handouts.** Have an adequate supply of materials available for all game participants.
7. **Arrange the physical environment of the classroom to suit the simulation game.** After reviewing the instructor's guide and completing the trial run, arrange an effective classroom setting. Provide adequate space for activities that call for movement around the classroom.

[1]Jim G. Koeninger, "Using Simulations and Games in the Distributive Education Classroom, *DE Today*, IX (Spring, 1976), pp. 6-7.

Since many simulation games can run for several days, an estimate of how long a game will take is needed in order to schedule the game activity most advantageously. The post-game discussion should be scheduled the same day as the last segment of play.

Pre-Game Orientation. An excellent description of a game's introduction to the class is provided by Heyman. He says,

> you should say in a *few* words—two or three sentences usually do it—what the game is about. If you are well prepared, you will have written this down or rehearsed it, but it should be said clearly and slowly—and *not* elaborated. The point is to get that across and then get the players into action. You should also inform the group that the game will be discussed as soon as it is over. Make sure that the players are aware of the rules necessary to get the simulation under way. Then answer questions, but no more than necessary to alleviate terribly wrinkled brows; mildly puzzled faces are O.K.! Playing the game will clarify the rules, and you should tell the participants precisely that: they will better understand the rules by using them.[2]

A copy of the game rules may be given to each student the day before a simulation game is to begin. If students become familiar with the rules and their roles ahead of time, the play is likely to begin more easily. Because the rules of any game are usually difficult to understand before they are actually used, students who have been unable to learn the rules at home should not be penalized. Testing the students on the learning of game rules would be completely unfair and would probably dampen class spirit as well as any enthusiam already developed.

Most importantly, the teacher should emphasize that participation in a simulation game is an enjoyable activity as well as a learning experience. Teachers inexperienced as game leaders may tend to over-emphasize the complexity of a simulation exercise. This tendency should be avoided because students should not be led to feel that an error on their part will disrupt the game. The teacher's goal is to have each class member anticipate the upcoming learning adventure with great enthusiasm.

Game Operation. Heyman's description of the teacher's role during the playing of a simulation game is one of the best available. He states,

> The first round or first actions are learning time for the players and for you, too, as director. Your job is to keep the simulation moving, but say no more than absolutely necessary to keep the action going. Do *not* coach the players, do not indicate by gesture or expression what you think about their actions. Players will ask you questions during the simulation. Listen to them with interest, and if there are answers (that is, answers that you know for sure), reply so that everyone hears you; frequently, the same question will be asked again and again—if you answer individually. If you don't know the answer (and this can happen even in a simulation which you have run before) say something like this: "I don't know, let's think about that and decide what would be best." If a search of the director's manual gives no help, discuss with the players what the rule *should* be; this will take your students into a brief consideration of the real world counterpart of the simulation. Come to an agreement with them on what decision would be best. Their thinking about the *reasons* for the decision will stretch their minds.[3]

A simulation game will not be a quiet activity. Students will be noisier than when in a traditional classroom setting because they will be communicating more with one another. They will move about the room more often and they will become more involved in the learning process. According to Gordon, if games are to be used in the flexible way intended, the teacher simply cannot know everything that is happening in the course of play. Events that occur simultaneously in the game will be revealed in the post-game discussion, or debriefing. The teacher's role in the game activity is the non-threatening position of coach not the role of a judge.[4]

Post-Game Discussion. For Stadsklev, merely buying and implementing a simulation game will not bring about a desirable result. He feels that, about 80 percent of the value of gaming lies in the debriefing.[5]

Gordon further substantiates this position when he states:

> One function that the teacher should neither delegate nor neglect is the debriefing. This is simply a post-game discussion, but the value of the game is seriously diminished without it and considerably enhanced by it. The very nature of a game suggests the need for a discussion during which the various activities that occurred simultaneously during play, and were thus obscured to many players, can be brought together to describe a total picture. While students can benefit from playing a game among themselves, as a kind of interlude or

[2]Mark Heyman, *Simulation Games for the Classroom* (Bloomington, Indiana: The Phi Delta Kappa Educational Foundation, 1975), p. 23

[3]*Ibid*, pp. 23-24

[4]Alice Kaplan Gordon, *Games for Growth* (Palo Alto, California: Science Research Associates, Inc., College Division, 1970), p. 111.

[5]Ron Stadsklev, *Handbook of Simulation Gaming in Social Education, Part 1: Textbook* (Tuscaloosa, Alabama: The University of Alabama, Institute of Higher Education Research and Services, 1974), p. 43

> diversion from ordinary classroom activities, an important opportunity would be wasted if the teacher simply returned to conventional activities without discussing it.[6]

The post-game discussion, or debriefing, then, is a crucial activity. It provides an opportunity for the teacher to point out that understanding the simulation model does not necessarily equate with understanding reality. A good debriefing compares the experience generated in the classroom with the real world.

Many simulation games come with guides and suggestions for formulating discussion questions; some provide specific statements of what students are to have learned. Still others leave the task of preparing for the debriefing completely to the teacher.

A good way to begin the post-game discussion is to determine the winners of the game. The winning persons or team ought to be asked what actions they took during the game and why these actions led to their winning. The individuals or teams that did not win should also be asked to describe what actions they chose and why these actions were less successful than those of the winners. After this initial discussion of strategies used, the following questions may be posed:

> What conclusions or inferences can you make concerning the operation of this system?
>
> Do you think this exercise was realistic? What real experiences have you had or observed that verify your opinion?
>
> Would you like to modify this exercise (or the rules) in some way to make it more consistent with reality?[7]

A basic debriefing structure has been developed to aid teachers in preparing for the post-game discussion. This debriefing structure is based upon the "EIAG" experiential learning model (E-experience, I-identify, A-analyze, G-generalize).[8]

1. **EXPERIENCE**—"Do"—explain the game experience.

   What were you trying to do?
   - — do your own thing?
   - — make decisions?
   - — cope with the environment?
   - — achieve some goal in spite of imposed restraints?
   - — simulate an encounter with life though a game experience?

2. **IDENTIFY**—"Look"—be descriptive.

   What are you trying to do?
   - — look at the facts?
   - — explain the symbolism in the game?
   - — surface feelings and reactions?
   - — generate data?

   What type of questions can be used?
   - — what do you think this represents?
   - — what makes you feel good or bad during the the game?
   - — what did you feel was the most significant thing that happened?
   - — how did you feel when . . .?
   - — what did you say when . . .?
   - — what did the other individual say when you . . .

3. **ANALYZE**—"Think"—be analytical.

   What are you trying to do?
   - — think about the outcomes?
   - — analyze cause and effect relationships?
   - — explore the results of alternative actions?

   What type of questions can be used?
   - — what problems did you face and how did you attempt to meet them?
   - — how were you affected by this happening?
   - — what relationships do you see in the data?
   - — why did it result in . . .?

4. **GENERALIZE**—"Learn"—draw conclusions.

   What are you trying to do?
   - — learn something from this experience?
   - — draw conclusions that will enable you to cope with your environment more successfully?

   Sequential steps for validating conclusions:
   - — Conclusions: identify conclusions drawn from the game experience.
   - — Game Data: identify the specific happenings in the game that brought you to this particular conclusion.
   - — Judgment: is the conclusion drawn from the game experience real or unreal (is it true or untrue in the real world)?
   - — Life Data: identify specific happenings from real life that support your contention that the conclusion is realistic or unrealistic (this last step can often lead to a search for data that support or disprove the conclusion).

The use of a simulation game will result in a changed role for the teacher. As the director of the game, the teacher will run the game and not the students. As the leader of the post-game discussion, the teacher will draw from the students what they have learned during the play and not tell them all they need to know. By using a simulation game, a teacher becomes a person who helps students learn instead of a person who "teaches" them everything.

[6]Gordon, op. cit., p. 116.
[7]Darrell R. Lewis and others, *Educational Games and Simulations in Economics* (Joint Council on Economic Education, 1974), p. 48.
[8]Stadsklev, op. cit., pp. 52-54.

Adapting and Developing Simulation Games

Simulation games are adaptable to many different classroom situations and students may even profitably design their own simulation games.

Much time, thought, and effort are required for the creation of a simulation game. Game designers must rework each phase of a game many times before it is suitable for classroom use. Even though so much effort has gone into the development of a game, rarely can a game be used exactly as it comes from the package.

If, for example, the game does not provide enough roles to accommodate the number of students in a class, the teacher may have two students play one role. This procedure provides the opportunity for more student interaction and communication. Two students working together to make game decisions will become involved in critical thinking as they challenge each other's reasoning, and look at each other's conclusions. In addition, when two students work together, a game extending over several days will not be disrupted if one of the players is absent from class one day. A committee of several students can participate in a game by playing a single role. Fortunately, most simulations have both necessary and optional roles so that they can be adapted to almost any given class size.

Large classes can be accommodated by using multiple sets of materials and student administrators. Or the class can be divided so that some students play the game while others observe.

Games can also be adapted from the time viewpoint. The number of "rounds" or "periods" of play can be increased or decreased as needs dictate, or the time allotted for each playing period can be lengthened or shortened. Penalties in lost points can be instituted for students who take too much time to get ready for play or who go over the set time limits.

Simulation games can also be adapted in terms of difficulty. According to Gordon, it is easier to complicate games than to simplify them; and for this reason, teachers of older students have greater flexibility when adapting games which were designed originally for younger students.[1]

The authors of many published simulation games encourage teachers to modify and adapt the games to meet class needs and even offer suggestions in teacher's manuals as to how it may be done. Some of the modifications may be minor, such as rewriting a role description to help a player understand his part better; or the changes might be major, such as adding rules and dimensions not in the original game. Most post-game discussions will bring forth ideas on modifying games, and students should be allowed to replay the games incorporating their modifications.

While the playing of a professionally prepared simulation game can be an exciting, rewarding, valuable learning experience, the creation of a simulation game can be an even more valuable experience as the students, the teacher, or both delve deeply into the elements of the real world while determining "what" and "how" to simulate. The design and development of a simulation game is a creative process. Gordon notes that game design is not a science and that even though basic steps for designing a game are available, the steps are not quite as easily used as the steps in a recipe. She states, "Game design is closer to being art, for the basic guidelines or rules for design tend to be useful only to a point."[2]

One way to begin designing and developing a game is to study and play a game that is already perfected. Playing a game a number of times will reveal more about the workings of simulation games than many discussions, lectures, or readings.

Many books and articles are devoted entirely or partially to the design and development of simulation games. The teacher who is interested in creating games or in having the students create games as class projects is encouraged to read one or more of them. Refer to the selected bibliography on page 12.

The steps in game design as adapted from those set forth by Zukerman and Horn are enumerated below.[3] Refer to the original source for the complete step by step procedure.

STEP 1 *Define the problem area to be simulated.*

The place to start is where class interest lies. This can be any social area, organization, or problem.

STEP 2 *Define the objectives and scope of the simulation.*

Statements which clearly define the purpose and scope of the game should be written down.

STEP 3 *Define the people and organizations involved.*

Simulation games involve social processes in which the key movement is provided by people, operating as individuals or in groups as part of established or ad hoc organizations.

STEP 4 *Define the motives and purposes of the players.*

Define the motives and purposes of the players as specificially as possible.

[1] Alice Kaplan gordon, *Games for Growth* (Palo Alto, California Science Research Associates, Inc., College Division, 1970), p. 147.

[2] *Ibid.*, p. 122.

[3] David W. Zukerman and Robert E. Horn, *The Guide to Simulation/Games for Education and Training* (Hicksille, New York: Research Media, Inc., 1974), pp. 439-443.

This will enable players to get a fast start and will allow the game designers to focus on the key conflict-cooperation areas in the game.

STEP 5 *Define the resources available to the players.*

Resources can be money, ownership of goods and services, etc. Less tangible resources exist: influence over other players; high or low status in the eyes of other players, or key information needed to make crucial decisions in the game. Research into the resources that people in different roles have available to them can be worthwhile in its own right as well as vital for the construction of realistic simulations.

STEP 6 *Determine the transactions to be simulated and the decision rules to be followed.*

The substance of a game is the sequence of transactions between the players. It is important at this stage of game design to formulate a broad, general idea of the sequence of what each player will do during the game.

Rules of the game must be written at this stage. These rules state the manner in which things can be done in the game. They also list the constraints or things which cannot be done. One of the biggest faults of beginning game makers is to make much too complicated a game, therefore, simplify as much as possible.

STEP 7 *Formulate the evaluation method.*

In many business games, the obvious scoring method is the amount of profit made by the business simulated. But it is important in the design of the game to decide if limits such as consumers' pressure for quality products or environmental considerations will be included.

At the end of play (or at the end of playing periods), an evaluation period when players can get together to talk about what they have learned and what the difficulties of play were is needed.

STEP 8 *Develop the simulation game prototype.*

Among the basic decisions will be whether to use a familiar board game (which is useful for keeping track of resources) or a role play (where players interact with other players).

At this stage, too, game materials will be designed—maps, business forms, etc. When "chance" or "nature" must be represented, dice or simple spinners may be used as may tables of random numbers.

STEP 9 *Try out and modify the prototype.*

An essential of game development is trying out the first draft on friends or classmates. A small try-out group is best at first, not a whole class. Problems encountered should be written down and modifications made. Several tryouts may be required before a satisfactory simulation game can be achieved.

Some things to consider during the tryout follow:

- How much time was devoted to each playing period? Was that enough?
- Did the game instructions work well? Suggest changes.
- Did the players play the roles easily or with difficulty?
- Were some players inactive during the play?
- Did the players have fun? Were they emotionally involved in the play?

The design and development of simulation games can be a most exciting and rewarding learning experience for both students and teachers, and the preceding guidelines should help to make the task a bit easier. Keep in mind that the preceding are indeed "guidelines." Even though people have been inventing games for many thousands of years, there are still no explicit rules to pass along. The development of a successful simulation game will depend on many trial and error experiences.

Evaluating Simulation Games

Simulation game activity is geared toward the intended objectives of the activity.

Educational research has yet to provide definitive answers as to just what, why, and how simulation games teach. Most observers of simulation game activity will agree, however, that the games do teach and that they do motivate and involve students in a way that few, if any, other educational methods can.

In the evaluation of simulation game activity little relationship exists betwen the activity and grades. Heyman suggests exempting the simulation from grading and basing grades on other activities or assignments or devising an assignment—announced after the post-game discussion—that requires research into the issues raised in the game.[1]

Gordon feels that no evaluation is worth doing prior to the post-game discussion in which students and teacher participate. Evaluation might consist of an essay describing the total process illustrated by the simulation.[2]

[1]Mark Heyman. Simulation Games for the Classroom (Bloomington, Indiana: The Phi Delta Kappa Educational Foundation, 1975), p. 26.

[2]Alice Kaplan Gordon. *Games for Growth* (Palo Alto, California: Science Research Associates, Inc., College Division, 1970), p. 162.

Gordon, too, suggests that post-game tests be used for diagnoistic purposes only—to discover what students have learned and where they are weak—and not for grades.[3]

The business teacher who feels that simulation game activity must be graded should be thoroughly familiar with the game used. Most simulation games can be used to reach a vast range of objectives, so the teacher must have a specific instructional objective in mind, be certain the objective is understood by the students, and then evaluate only the achievement of the stated objective.

The teacher can manipulate the use of the simulation game so as to emphasize the experience, concept, or information desired. The mere playing of a simulation game cannot possibly convey all the performance goals that can be written for a given game. The simulation activity must be geared rather toward the intended objectives. Student evaluation, once the objectives have been established, may be achieved by a variety of methods.

[3]Ibid.

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Descriptions of Selected Simulation Games

The list of simulation games was assembled from several sources and games were selected that were considered useful at the secondary level. Listings in recently published books on simulation games were consulted.[1] [2] [3] Publishers' brochures describing new games were surveyed, and catalogs of gaming materials were scanned. Several simulation games requiring computer facilities are included for those teachers with the interest in and access to computers.

Information regarding the games may be obtained by contacting the company or person listed as "Source." Addresses are found at the end of the list. The price indicated for each game may provide only an estimate of its current market price, for recent inflationary trends have affected simulation games as well as most other products in our ecomony.

An excellent source of many of the games included in this section is Educational Manpower, Inc.; P.O. Box 4272; Madison, WI 53711. This company publishes two catalogs—one for junior high school through college and one for the elementary grades. Either or both catalogs may be obtained by writing to the above address. Those games in the listing which appear to be available from Educational Manpower, Inc.—EMI—are designated in the "source" area.

Information regarding the newest in simulation game material may be obtained by reading the bimonthly magazine, *Simulation/Gaming/News*. This magazine regularly lists new simulation games and indicates any deletions or changes among existing games. Subscriptions or individual copies may be obtained by writing to *Simulation/Gaming/News*; P.O. Box 3039; Moscow, ID 83843.

The Virgina Council for Economic Education has several simulation games available to loan to Virginia teachers. These include Consumer, Baldicer, Life Career, Market, Marketplace, Mr. Banker, Wheels, and Consumer Redress; new games are added from time to time. For information regarding the use of the games, contact Dr. Dennis M. O'Toole, Virginia Council for Economic Education, School of Business, Virginia Commonwealth University, Richmond, VA 23284. Telephone (804) 257-1627.

[1] Darrell R. Lewis, and others, *Educational Games and Simulations in Economics* (Joint Council on Economic Education, 1974).

[2] Ron Stadsklev, *Handbook of Simulation Gaming in Social Education, Part 2: Directory* (Tuscaloosa, Alabama: The University of Alabama, Institute of Higher Education Research and Services, 1975).

[3] David W. Zukerman and Robert E. Horn, *The Guide to Simulations/Games in Education and Training* (Hicksville, New York: Research Media, Inc., 1973).

Game: ANDESIA
Source: Jay Reese
Subject: Economics
Grade Level: Junior High School
Playing Time: 2-5 Hours
Participants: 15-30
Cost: $2.00

ANDESIA is a simulation of life in the Andean nations of South America. Participants are members of groups which make decisions and interact with each other. As members of their group, they assume roles and try to influence the decisions of their group. For example, mine workers favoring a strike, workers against a strike, and neutral workers whose votes are essential. The mine owners group must, in turn, decide how to react to the mine workers' decision.

Game: BALANCE
Source: Interact
Subject: Ecology, economic goals and decisions
Grade Level: Senior High School
Playing Time: 30 Hours
Participants: 20-30
Cost: $10.00

The first hour simulates the last 150 years of U.S. history. Fifteen participants are animals; four are Indians; the rest are settlers who dominate and kill animals, fight Indians, and subdue the wilderness until their population soars to over 100,000. Participants are then divided into families of four members each living in Ecopolis, a city with many ecological problems. Interviewing parents and adults plus reading about pollution culminate in confrontations over what social action to pursue. Before an essay evaluation ends the game, participants conduct an ecological survey of their community and hold a one-hour forum in which they argue about the ecological balance of their own environment.

Game: BALDICER
Source: John Knox Press
Subject: World Economy
Grade Level: Senior High School
Playing Time: 2-4 Hours
Participants: 10-20
Cost: $25.00

The objective of this simulation game is to experience the interdependence of the world economy. The participants also gain increased awareness of related issues such as the population explosion, inflation, unequal distribution of resources and technology, and competing styles of economic organization.

Game: BALPAY
Source: Digital Equipment Corporation
Subject: Balance of Trade
Grade Level: Junior-Senior High School
Playing Time: One-half to 2 Hours
Participants: 2-10
Cost: Individual packet $2.10; classroom packet $14.00

This computer-assisted game simulates the United States balance-of-trade payments; contributing trade factors are manipulated to present relationships.

Game: BANKING
Source: Didactic Systems, Inc.
Subject: Economics, Banking
Grade Level: Senior High School
Playing Time: 2-5 Hours
Participants: Teams of 6
Cost: $12.00 for 30 participants plus teacher's guide $3.50

Through simulation and role-playing, participants in the game have a chance to observe, analyze, and solve problems in a specific field of the economy. The game involves the financial activities and decisions of commercial banks. It serves to illustrate that a bank is both a profit maximizer and an influential factor in stimulating and encouraging local economic development through its transactions.

Game: BAZAAR, A Simulation of Barter and Monetization
Source: American Universities Field Staff
Subject: Barter and Monetization in a Subsistence Economy
Grade Level: Senior High School—College
Playing Time: One class period minimum. Can be extended with increasing sophistication among traders to five class periods.
Participants: 3 or more (Individuals play on one of three teams.)
Cost: $49.00 include this and another simulation PILGRIMAGE and more than 60 supporting culture study materials comprising a unit of study.

Participants role-play farmers, nomads, and shopkeepers in Aq Kupruk; the micro-economy of a town in northern Afghanistan. Subsistence living is presented in a context typical of the dry-land people of Afro-Eurasia.

Game: BEAT DETROIT
Source: Reiss Games (Also available from EMI)
Subject: Economics of Automobile Maintenance
Grade Level: Junior-Senior High School
Playing Time: 1-3 Hours
Participants: 2-4
Cost: $8.95

If participants can travel 50,000 miles on $7,000 before their car falls apart, they have BEAT DETROIT. Each player begins in the car dealership with a new car, $7,000, and a warranty.

Game: BEAT THE MARKET
Source: South-Western Publishing Co., Inc.
Subject: Economics, Consumerism
Grade Level: Senior High School—Adult
Playing time: 1 Hour
Participants: 6-42
Cost: $50.00

This is a set of five simulation games: Limited Market (Love Bugs); Limited, Competitive Market (Poncho); Competitive Exchange Market (Wall Sreet); Competition or Subsidy (Peanuts); and Competition or Control (Apartment Rental). Participants simulate the actions of consumers, representing "demand," and of producers, representing "supply." The games are available only as a set of five.

Game: BILLIONAIRE
Source: Parker Brothers Games (Also available from EMI)
Subject: Global Enterprise
Grade Level: Senior High School
Playing Time: Variable
Participants: 2-4
Cost: $11.50

BILLIONAIRE is a big-money game that lets players plunge into oil, aerospace, chemicals, cattle, and other worldwide industries.

Game: BLACKS AND WHITES
Source: Dynamic Design Industries
Subject: Economic Equality
Grade Level: Junior-Senior High School
Playing Time: 1-2 Hours
Participants: 4-20
Cost: $6.95 plus shipping and handling

This game places the participants within a ghetto environment. It shows how the ghetto can be both a place and a state of mind. Welfare and housing issues are also presented in this game.

Game: BLIGHT
Source: Instructional Simulations, Inc. (Also available from EMI)
Subject: Urban Studies
Grade Level: Junior-Senior High School—College

Playing Time: 3-8 Hours
Participants: 20-40
Cost: $42.50 plus shipping

BLIGHT explores the social dimensions of community decline. It deals with the sectors, problems, values, and issues that both prompt change and inhibit community renewal.

Game: THE BLUE WODGET COMPANY
Source: Jay Reese
Subject: Business Structure
Grade Level: Elementary—Junior High School
Playing time: 2-4 Hours
Participants: 20
Cost: $5.00

In this role-play simulation, the participants become stockholders, managers, and personnel of a manufacturing concern. They must contend with other participants who represent concerned citizens in the community.

Game: BUDGET
Source: Interact
Subject: National Budget
Grade Level: Junior-Senior High School
Playing Time: 2-4 Hours
Participants: 40
Cost: $10.00

This role-play simulation allows participants to research specific "budgeted" agencies in the federal government and attempt to reach consensus on a budget for the country. Special interests force compromise and negotiation.

Game: BUDGETARY POLITICS AND PRESIDENTIAL DECISION MAKING
Source: Science Research Associates, Inc.
Subject: The Federal Budget
Grade Level: Senior High School—Adult
Playing Time: 2-6 Hours
Participants: Any Number
Cost: $1.25 per participant; $1.00 per facilitator's manual

This is an individual simulation which provides participants with the opportunity to experience the process of developing the United States Federal Budget.

Game: BUDGETING GAME
Source: Changing Times Education Service (Also available from EMI)
Subject: Consumer Economics
Grade Level: Junior-Senior High School
Playing Time: 2-4 Hours
Participants: Teams of 4
Cost: $24.50—Contained in a consumer education unit

Participants simulate a middle-income family of four earning $10,000. They must decide how to spend their money over a twelve-month period. The objective is to keep family spending equal to or less than the budget allotment. In this way participants learn that families make different choices about spending and saving, depending on their way of living, their needs and wants, their interests, likes and dislikes, hobbies and family goals.

Game: THE BUDGETING GAME
Source: Available from EMI
Subject: Consumer Economics
Grade Level: Junior-Senior High School
Playing Time: Variable
Participants: Variable
Cost: $8.95

Teams of students take on roles of family members; and through strategic thinking, bargaining, and compromising, they set priorities and budget family income for a year.

Game: BUDGETS AND TAXES
Source: Education Ventures, Inc.
Subject: Community Decisions
Grade Level: Junior-Senior High School
Playing Time: 4-6 Hours
Participants: 6-20
Cost: $4.95

Participants find themselves first in the roles of Riverdale's public officials, submitting budget requests for the year—then in the roles of private citizens who are affected by increases or cutbacks in services and taxes. Participants can increase spending in various departments without raising taxes as long as they can convince other departments to decrease spending. If that isn't possible, taxes must go up. The goal is to give the community the kinds of services and programs that people are willing to pay for with their tax dollars.

Game: BUSINESS STRATEGY
Source: Avalon Hill Company (Also available from EMI)
Subject: Economics, Supply and Demand
Grade Level: Junior High School—Adult
Playing Time: 2-5 Hours
Participants: 2-30
Cost: $10.00

BUSINESS STRATEGY explores the principles of supply and demand. Participants act as heads of corporations and bid on set limits of raw materials, process their purchases into finished units in conventional or automated factories, and sell on the open market for the highest possible price.

Game: BUYER BEWARE
Source: Edu-Game (also available from EMI)
Subject: Consumer Economics
Grade Level: Senior High School—Adult
Playing Time: 4-5 Hours
Participants: 12 +
Cost: $1.50

In this simulation about smart shopping, the classroom becomes the marketplace. Participants become store managers, salespersons, accountants, or consumers in four department stores. As inflation and recession set in, each store competes for the most profit while the consumers try to get the best buys.

Game: CAPITAL
Source: Berkeley Gaming Project
Subject: Nineteenth-Century Economy
Grade Level: Senior High School—College
Playing Time: 3-8 Hours
Participants: 22-44
Cost: $20.00

Labor relations, production, marketing, and government regulations in a nineteenth-century economy—roles include laborers, middlemen, industrialists, and government officials. Once subsistence is assured, participants may choose to optimize wealth or power or promote their concept of an ideal social order.

Game: CAREERS
Source: Parker Brothers Games
Subject: Occupations
Grade Level: Elementary—Junior-Senior High School
Playing Time: One-half to 2 Hours
Participants: 2-6
Cost: $4.74

CAREERS gives participants a preview of the working world. Players choose from eight up-to-date occupations, setting their own success goals. There are rewards, promotions, setbacks, and decision-making actions as they meet realistic challenges while trying to attain fame, fortune, and happiness.

Game: CENTER CITY
Source: John Knox Press (Also available from EMI)
Subject: Urban Poverty
Grade Level: Junior High School
Playing time: 2-3 Hours
Participants: 12-27
Cost: $15.00

CENTER CITY helps the participants experience what it's like to be poor in a large city. As junior high age residents, they spend time in such areas as home, school, community, church, extracurricular activities, and the streets. Maximum points are earned when participants unite across ethnic lines to overcome inadequate housing, food, recreation, and safety conditions.

Game: CHANGING DOLLARS
Source: Stem (Also available from EMI)
Subject: Inflation/Deflation
Grade Level: Junior-Senior High School
Playing Time: 2-3 Hours
Participants: 8 +
Cost: $3.00

This is a role-playing activity designed to simulate the response of people to a fluctuating currency. The game illustrates how people react when they see their cash resources lose value during inflationary periods and gain value during deflationary times.

Game: CHARGE
Source: Paul S. Amidon & Associates, Inc. (Also available from EMI)
Subject: Charge Accounts
Grade Level: Senior High School
Playing Time: 2-3 Hours
Participants: 10
Cost: $15.00

This role-playing simulation allows participants to purchase goods and services during a simulated twelve-month period. The computer assigns positive and negative unexpected events.

Game: CHECK STAND
Source: Washington State University
Subject: Consumer Economics
Grade Level: Elementary—Junior High School
Playing Time: One-half to 1 Hour
Participants: 2-4
Cost: $1.25

CHECK STAND is a board game which utilizes dice and play money. Each player buys groceries for a week for one of six families. The intent is to help players become wiser food buyers.

Game: THE CITIES GAME
Source: Dynamic Design Industries
Subject: Urban Affairs
Grade Level: Senior High
Playing Time: 1-3 Hours
Participants: 4-8
Cost: $6.95 plus shipping and handling

This is a game of negotiations. There are four power roles—business, government, slum dwellers, and agitators. The object of the game is to acquire as much money and power as possible. This is done by collecting "rewards" from the game treasury or by negotiating "side payments" from other participants. The winner is the participant with the most money at the end of the game. The game ends after ten voting periods or when the Future City is reached.

Game: CLUG
Source: Urbex Affiliates, Inc. (Also available from EMI)
Subject: Community Land Use
Grade Level: Senior High School
Playing Time: 3-20 Hours
Participants: 5-25
Cost: $75.00

The Community Land Use Game (CLUG) is a board game which abstracts a small number of basic attributes of cities and their surrounding territories on the basis of which players build, operate, and maintain their community. Play of CLUG begins with each of three to five teams in possession of capital with which they seek to buy land, to construct commercial or residential properties and to make profitable investments. Investment opportunities arise through gaining employment for residential properties, hiring employees to put industries into operation, or gaining customers for service establishments from among the community's residential units.

Game: COLLECTIVE BARGAINING
Source: Didactic Systems, Inc.
Subject: Economics, Collective Bargaining
Grade Level: Senior High School
Playing Time: 2-5 Hours
Participants: Teams of 6
Cost: $12.00 for 30 participants plus teacher's guide $3.50

COLLECTIVE BARGAINING introduces participants to a crucial phase of labor-management relations. It is a model that allows participants to simulate the atmosphere and conditions that prevail during the negotiations of a new labor contract.

Game: COMMUNITY
Source: Didactic Systems, Inc.
Subject: Economics, Community Affairs
Grade Level: Senior High School
Playing Time: 2-5 Hours
Participants: Teams of 6
Cost: $12.00 for 30 participants plus teacher's guide $3.50

Through the use of a model, this game helps participants to become aware of some of the economic principles and problems involved in running a community, the relationships between wages and profits generated by local industry, and the tax-expenditure problems of local government. The objective of the game is to create the most attractive, progressive community possible. Participants measure success by the number of improvements in the community, by wage rates, and by the prosperity of local industry. The game is intended to acquaint participants with the public sector of the economy and illustrate the basic problems of selecting and financing public services.

Game: COMPUTERIZED MANAGEMENT
Source: Not published but can be played by contacting Computer Games, Inc.
Subject: Business, Total Enterprise
Grade Level: Senior High School—College
Playing Time: 7-14 Hours
Participants: 2-64, in Teams of 2-16
Cost: $58.00 purchases 16 companies for 14 moves by regular mail

COMPUTERIZED MANAGEMENT is unique in that it is played by mail, making the complexity and realism of man-machine simulations available to students who would otherwise not have such access. The game emphasizes competition between companies. It teaches decision making, basic understanding of a business enterprise, basic understanding of financial reports in action, and complete understanding of competition and the market economy.

Game: CONSUMER
Source: Bobbs Merrill Company (Also available from EMI)
Subject: Consumer Education
Grade Level: Senior High School
Playing Time: 2-4 Hours

Participants: 11-34
Cost: $30.00

CONSUMER is a unit on consumer buying processes. It involves the players in the problems and econmics of installment buying. The purpose of the exercise is to teach students how to calculate true interest rates, how to negotiate contracts with credit managers, and the problems and economics of budgeting and buying. Participants assume the roles of consumers, credit agents, and store owners. Consumers compete to get maximum pleasure from their purchases and minimum credit charges; credit agents compete for the best terms to the most people. Decisions must be made on what, whether, and when to buy goods; whether and when to use credit; creditors must decide to whom and under what terms to give credit. (This is also available as a computer game which can be played by one person at a time. Special arrangements must be made with BOCES).

Games: CONSUMER DECISION
Source: Edu-Game (Also available from EMI)
Subject: Consumer Economics
Grade Level: Junior-Senior High School—Adult
Playing Time: 3-4 Hours
Participants: 15 +
Cost: $1.50

In this activity, "family groups" are faced with the problem of budgeting a limited income. Participants "purchase" consumer goods and services, arrange for loans, make time payments, and prepare for financial emergencies. There is an emphasis on financial planning which can help provide the "family" with all the basic necessities as well as some luxuries.

Game: CONSUMER REDRESS
Source: Changing Times Education Service
Subject: Consumer Rights
Grade Level: Junior-Senior High School
Playing Time: Variable
Participants: 30
Cost: $64.50 for a total consumer law kit in which the game is a small part

The game allows participants to identify consumer rights in the marketplace, the right to safety, the right to choose, and the right to be heard. It also presents responsibilities related to these rights and issues involved in consumer law.

Game: COOPERATIVE WORK
Source: Simulation/Gaming/News
Subject: Production Process
Grade Level: Elementary—Junior High School
Playing Time: 1 Hour +
Participants: 10 +
Cost: Article in *Simulation/Gaming/News*, May, 1974

COOPERATIVE WORK simulates the process of production. Participants, in groups of five or six, elect a "boss" and a "salesman" and name their "company," which makes Parcoes, the specifications of which are provided by the facilitator. Scissors, paper clips, paper, crayons, rulers, and pencils must be provided by the facilitator.

Game: THE CREDIT GAME
Source: Leswing Communications
Subject: Credit
Grade Level: Elementary—Junior High School
Playing Time: One-half to 1 Hour
Participants: 8
Cost: $6.95

The participants use credit to obtain their wants and needs. Good judgment is needed not to overspend and to be able to pay the bills.

Game: CRISIS IN MIDDLETOWN—A SIMULATION IN LABOR RELATIONS
Source: Edu-Game (Also available from EMI)
Subject: Labor Relations
Grade Level: Junior High School—Adult

Playing Time: 3-4 Hours
Participants: 15 +
Cost: $1.50

This simulation game creates an atmosphere of labor unrest in a semi-urban community. Participants assume various community roles in an attempt to solve this labor crisis. Community cooperation is emphasized, but special interests and major value differences complicate the problem. Contemporary labor problems are illustrated.

Game: DESIGN
Source: Interact
Subject: Home Ownership
Grade Level: Elementary—Adult
Playing Time: 15-25 Hours
Participants: 18-35
Cost: $20.00

The intent of DESIGN is to develop in participants an understanding of the problems and pleasures of owning a home.

Game: DIRTY WATER
Source: Damon/Educational Division
Subject: Water Pollution, Ecology
Grade Level: Elementary—Junior-Senior High School
Playing Time: 1-3 Hours
Participants: 2-4
Cost: $10.00

In this game each participant assumes the role of a water pollution control official who is responsible for stocking a lake. The participant does so by collecting appropriate organisms while moving around the game board, confronting the problems of water pollution each time the participant lands on a "pollution" triangle. The participant must learn to anticipate possible pollution of the lake, attempt to avoid the problem of overpopulation, manage finances efficiently, and consider the problem of possible pollution coming from upstream. A participant wins the game by controlling the pollution and thereby being the first to completely stock a lake. The purpose is to teach ecology, the problems of water pollution, and the complexity of the decision-making process.

Game: DYNASTY
Source: Holt, Rinehart and Winston, Inc.
Subject: Economics
Grade Level: Junior High School—Adult
Playing Time: 3-7 Hours
Participants: 4-8
Cost: $15.00

Participants assume various societal roles in an agricultural society. Each works to accumulate power and wealth and tries to become the emperor. Among the problems which have to be considered are the building of public works, the amount to tax, over-population, and revolution.

Game: ECOLOGY
Source: Damon/Educational Division
Subject: Ecology
Grade Level: Elementary—Junior-Senior High School
Playing Time: 1-3 Hours
Participants: 2-4
Cost: $10.00

This game allows players to begin the world over again. They must guide the human population through four stages of mankind's development: hunting, agricultural, industrial, and environmental. Each participant must attempt to bring the population, the technology, and the natural environment into a workable balance.

Game: ECON/GNP
Source: Digital Equipment Corporation
Subject: U.S. Economy

Grade Level: Junior-Senior High School
Playing Time: 1-2 Hours
Participants: 2-10
Cost: Individual packet $2.10; classroom packet $14.00

This computer-assisted game simulates the United States economy. Decisions are made which affect the productive capacity of the country.

Game: ECONOMIC SYSTEM
Source: Bobbs Merrill Co. (Also available from EMI)
Subject: Competitive Economic System
Grade Level: Junior-Senior High School
Playing Time: 2-6 Hours
Participants: 7-13
Cost: $25.00

ECONOMIC SYSTEM is based on the interrelationship of a competitive economic system. Mine owners, manufacturers, workers, and farmers produce, market, and consume goods while trying to make a profit and maintain a high standard of living. The game attempts to provide a graphic illustration of concepts relating to the operation of economic systems, including the dependence of each part of the system on the activities of other parts; ways in which group demands can cause the individual to modify behavior; and how participants can use their power to see to it that their own interests play a role in any group demands and collective goals that may be formulated. Participants can also learn about trade, the problems of international trade, the problems of taxation, and the provision of public goods.

Game: THE ECONOMY GAME
Source: Available from EMI
Subject: Finance
Grade Level: Junior—Senior High School
Playing Time: Variable
Participants: Variable
Cost: $5.50

THE ECONOMY GAME is a game of finance that incorporates the elements of education, supply and demand, and productivity. Players can save, invest, start factories, buy and sell, and experience the same kinds of risks and rewards which occur in real life.

Game: ELECTION
Source: Educational Games Company (Also available from EMI)
Subject: Political Careers
Grade Level: Elementary—Senior High School
Playing Time: One-half to 1 Hour
Participants: 4
Cost: $5.95

The purpose of this game is to inform the participants of the fundamentals of government service, the elective system, and the mechanics of the election of the President of the United States. Participants seek a career in government service—then seek the presidency.

Game: ENTERPRISE
Source: Interact
Subject: Free Enterprise
Grade Level: Junior-Senior High School
Playing Time: 2-4 Hours
Participants: 20-30
Cost: $10.00

This role-play simulation places the participants into positions as bankers, businessmen, brokers, consumers, welfare poor, politicians, and lobbyists. These groups interact with one another, buying and selling labor; buying and selling capital; and generally engaging in all the economic activities capitalism requires in order to function.

Game: ESSO SERVICE STATION GAME
Source: CRAC
Subject: Competition in the Market
Grade Level: Senior High School—College
Playing Time: Open—up to ten 1-hour sessions
Participants: 30
Cost: 10 pounds (plus 75 pence postage)

The ESSO SERVICE STATION GAME allots each team a service station with varying facilities. The teams then compete with each other for a greater market share of gasoline sales; car servicing; and sales of tires, batteries, and accessories.

Game: ESSO STUDENTS BUSINESS GAME
Source: CRAC
Subject: Financing
Grade Level: Senior High School—College
Playing Time: Open—up to ten 1-hour sessions
Participants: 30
Cost: 10 pounds (plus 75 pence postage)

The players in this game experience the complexities of financing a company which manufactures and markets refrigeration equipment. Decisions must be made in the finance, production, and marketing areas.

Game: EXCHANGE—A STOCK MARKET ACTIVITY
Source: Edu-Game (Also available from EMI)
Subject: The Stock Market
Grade Level: Junior High School—Adult
Playing Time: 5-7 Hours
Participants: 6 +
Cost: $1.50

EXCHANGE is a simulation activity in which the operation of the stock market is analyzed. "Stock clubs" are formed for buying and selling stock.

Game: EXECUTIVE DECISION
Source: 3M Company or Department Store
Subject: Production
Grade Level: Senior High School—Adult
Playing Time: 2-3 Hours
Participants: 2-6
Cost: $10.95

Each month participants purchase raw material, manufacture products, and attempt to sell the finished goods at best market price. The participant who makes the most profit for the corporation wins.

Game: FILL YOUR GROCERY CART WITH NUTRITION
Source: Illinois Teacher
Subject: Consumer Economics
Grade Level: Junior High School—Adult
Playing Time: 1-2 Hours
Participants: 2 +
Cost: $6.95

FILL YOUR GROCERY CART WITH NUTRITION is a food-buying game which includes a board and cards representing the supermarket grocery cart, foods, and so on. It deals with concepts related to consumer education and nutrition.

Game: FIRM
Source: Didactic Systems, Inc.
Subject: Business Management
Grade Level: Senior High School—College
Playing Time: 2-4 Hours
Participants: Teams of 6
Cost: $12.00 for 30 participants plus teacher's guide $3.50

The purpose of this exercise is to teach the economic principles of running a firm and the fundamental relationships between assets, liabilities, revenue, cost, profits, and net worth. Teams represent store owners; and participants represent the president, operation manager, buyer, controller, assistant controller, and public accountant. They must decide at what price to sell merchandise, whether to take on additional loans, and what to do with profits.

Game: FISCAL POLICY
Source: Stem (Also available from EMI)
Subject: Fiscal Policy
Grade Level: Senior High School—Adult
Playing Time: 5-8 Hours
Participants: 15 +
Cost: $3.00

Participants assume roles as members of consumer groups, labor, big business, and so on, and take stands in the simulated government decision-making process dealing with fiscal policy.

Game: F.L.I.P.
Source: Instructional Simulations, Inc. (Also available from EMI)
Subject: Consumer Education, Economics
Grade Level: Junior-Senior High School—College
Playing Time: 5 Hours
Participants: 2-30
Cost: $35.00

A one- or two-person simulation and didactic unit treating the factors of budgeting, life-style, credit management, payment schedules, investment programs, purchase options, and income management. Twelve simulated periods, or one year, are conducted. Twenty different families are available as didactic units, each illustrating the role of family size, income, education, occupation, residence, and related socioeconomic variables as determinants of family life income patterns.

Game: FORST: A COMPUTER SIMULATION OF A LUMBER COMPANY
Source: University of Alberta
Division of Educational Research Services
Subject: Specific Industry, Lumbering
Grade Level: Junior-Senior High School
Playing Time: 40 Minutes to 2 Hours
Participants: 1 to the number of computer terminals
Cost: Cost information available from source

This game increases student awareness of some of the variables involved in the operation of a primary industry, in this case, lumbering, and how these variables interact with each other, creating the necessity for constant evaluation and modification. The goal is to operate a stable enterprise that shows a reasonable profit for investment and effort.

Game: FREE ENTERPRISE GAME
Source: Not published but can be played by contacting:
Board of Cooperative Educational Services
Subject: Business, Total Enterprise
Grade Level: Junior-Senior High School
Playing Time: 10 to 20 periods of 40 minutes
Participants: 1
Cost: Arrangements may be made with B.O.C.E.S.

This computerized simulation deals with a toy store owner who later buys a surf board factory. Its goal is to demonstrate the everyday problems of retailers and, as producers, the law of supply and demand, diminishing returns, and specialization, as well as hiring, firing, and setting wages.

Game: HOME ECONOMY
Source: Games Central (Also available from EMI)
Subject: Consumer Economics
Grade Level: Junior High School—Adult
Playing Time: 2-4 Hours

Participants: 1-30
Cost: $75.00

A home-making problem card which presents such problems as arranging a last-minute dinner party for the boss, determining the cheapest way to wash windows, shopping for vegetables (fresh, frozen, canned), or cost calculating as opposed to the convenience of prepared food, structures the tasks for participants. They shop in a simulated supermarket where cards represent goods displayed in the different sections of a store. Shoppers must make trade-offs between such factors as quality, personal taste, convenience, and economy in a highly inflated market place.

Game: HOUSEHUNT
Source: Available from EMI
Subject: House hunting
Grade Level: Junior—Senior High School
Playing Time: Variable
Participants: Variable
Cost: $8.95

All the problems, alternatives, and decisions of real-life house hunting are included in this fast-paced educational game.

Game: HUMAN VILLAGE
Source: Law in American Society Foundation
Subject: Economics
Grade Level: Senior High School—Adult
Playing Time: 4-8 Hours
Participants: 6 +
Cost: Described in *Law in American Society*. October, 1973.

Participants assume the roles of six families in an isolated Indian village in Northeastern Brazil. The social and economic levels of the families range from very poor to very rich. Each family must try to attain all of the resources necessary to sustain itself according to a consumer level matrix by trading and bargaining with the other families.

Game: IMPORT
Source: Simile II (Also available from EMI)
Subject: International Trade
Grade Level: Elementary—Junior High School
Playing Time: 10 to 20 Forty-minute sessions
Participants: 18-35
Cost: $10.00

IMPORT is a simulation of the activities of six importing firms located in various ports around the world. Each firm, made up of approximately six participants, buys exports from various countries. Those firms which are able to buy products which can be sold for a profit in their own country are declared the winners.

Game: INFLATION
Source: Paul S. Amidon & Associates, Inc. (Also available from EMI)
Subject: Inflation
Grade Level: Senior High School
Playing Time: 1 Hour
Participants: 33
Cost: $20.00

A role-playing activity which allows participants to take part in simulated aspects of the complex process of political-economic decision-making. Representing five major groups in the United States, participants attempt to influence the federal government to gain economic advantages as the government works to control inflation.

Game: THE INNER-CITY HOUSING GAME
Source: Found in *Simulation Games*, The Free Press
Subject: Inner-City Housing
Grade Level: Junior-Senior High School
Playing Time: Two and one-half to 4 Hours
Participants: 6-10
Cost: $4.95

This simulation provides participants with a role-play experience involving inner city housing problems. The participants must find a place to live which is personally satisfactory and within certain budgetary limits. Typical housing problems are experienced and handled by each participant.

Game: INTERNATIONAL TRADE
Source: Didactic Systems, Inc.
Subject: Commerce, Foreign Trade
Grade Level: Senior High School
Playing Time: 2-5 Hours
Participants: Teams of 6
Cost: $12.00 for 30 participants plus teacher's guide $3.50

Participants play the roles of competitive importers, exporters, traders, and bankers. They must decide what to produce, how much to produce, and what to import. The objective is to gain profits from trade and to increase general welfare.

Game: INVEST
Source: Changing Times in Education Service
Subject: Savings and Investing
Grade Level: Junior High School—Adult
Playing Time: 2-4 Hours
Participants: 5 +
Cost: $8.95

Participants in the roles of investors must decide how to make their money grow while at the same time keep it safe.

Game: LABOR VS. MANAGEMENT
Source: National Council for the Social Studies
Subject: Labor Relations
Grade: 9-12
Playing Time: 2-3 Hours
Participants: 12-35
Cost: Described in *Social Education Magazine*, October, 1966, or October, 1973

The intent of LABOR VS. MANAGEMENT is to develop an understanding of the dynamics involved in labor-management negotiation procedures.

Game: LANDOSA
Source: Jay Reese
Subject: Inflation
Grade Level: Junior-Senior High School
Playing Time: 2-5 Hours
Participants: 10-40
Cost: $5.00

LANDOSA simulates a ruinous inflation although participants do not at first realize this. Each year (round) inflation grows, despite governmental attempts to control it. The reality of the inflation is obvious as a list of prices for everyday items is posted and kept up to date.

Game: LIFE CAREER
Source: Bobbs Merrill Company (Also available from EMI)
Subject: Career Choice and Opportunity Costs
Grade Level: Junior-Senior High School
Playing time: 2-6 Hours
Participants: 4-20
Cost: $35.00

LIFE CAREER contains certain features of the "labor market," "education market," and the "marriage market" as they now operate in the United States and as projections indicate they will operate in the future. Participants work with the profile of a fictitious person, allotting time and activities among school, studying, a job, family responsibilities, and leisure time. Each team represents a teenager planning and then living through about eight years of life. The objective is to plan a life which gives specific rewards to the person whose role is assumed by the participants. It is intended to give participants some advance experience in planning for their own future.

Game: LIFESTYLE
Source: Educational Methods (Also available from EMI)
Subject: Life Planning and Decision Making
Grade Level: Junior High School—Adult
Playing Time: 2-4 Hours
Participants: 2
Cost: $19.95

LIFESTYLE is a simulation of life planning and decision making. The activity for which two people play the roles of an engaged couple planning how to live during their marriage provides a format for discussion of values, priorities, and goals.

Game: LOW BIDDER
Source: Entelek, Incorporated
Subject: Management, Market Competition
Grade Level: Senior High School
Playing Time: 2-4 Hours
Participants: 2-25
Cost: $10.00

LOW BIDDER simulates the conditions that face executives in bidding for control in manufacturing, construction, printing, and many other industries. Participants learn how to select jobs on which there are apt to be relatively few bidders, how to estimate the markup, and how to protect the company against cut-throat competition. Participants assume the roles of company managers.

Game: MACROECONOMIC POLICY GAME
Source: Prentice-Hall, Inc.
Subject: Macroeconomic Policy
Grade Level: Senior High School—College
Playing time: 2-10 Hours
Participants: 15-25
Cost: Contained in book, $7.95

MACROECONOMIC POLICY GAME involves teams of participants in policy decision-making with a computer-simulated macroeconomic model of the economy. Governmental expenditures, marginal tax rates, and the money supply are alternative instruments for policy control. The purpose of the game is to illustrate the complexities of a dynamic economy and the problems inherent in the use of fiscal and monetary policy to pursue the goals of economic stability and growth. This exercise can be found in a book, *Recent Research in Economic Education*, edited by Keith G. Lumsden.

Game: MANAGING YOUR MONEY
Source: CUNA Mutual Insurance Society
Subject: Money, Credit, and Insurance
Grade Level: Junior-Senior High School
Playing Time: 1-2 Hours
Participants: 2-6
Cost: $2.50 plus postage

A game designed to teach the principles of money, credit, and insurance. Participants select a vocation, earn a salary, and charge a fee to other participants. They save, borrow, earn dividends, and pay interest. Insurance is made available to participants to protect them against "built-in" hazards.

Game: MARKET
Source: Benefic Press
Subject: Economics
Grade Level: Elementary—Junior High School
Playing Time: 1-3 Hours
Participants: 16-40
Cost: $54.00

The game attempts to help participants to discover the economic concepts of market, profit, and supply and demand. The entire class is divided into two groups, consumers and retailers. Within the groups, participants are paired to form teams which compete against each other. Retailers must buy food from a wholesaler, rent stores, and establish their own selling prices. They must attempt to maximize their profits. Consumers must attempt to buy food with limited funds. Points are given for the better choices and use of the funds. The consumer team with the most points wins the game.

Game: MARKET
Source: Didactic Systems, Inc.
Subject: Economics, Supply and Demand
Grade Level: Senior High School
Playing Time: 2-5 Hours
Participants: Teams of 6
Cost: $12.00 for 30 participants plus teacher's guide $3.50

The purpose of this game is to demonstrate how price is established through changing demand and supply conditions. It also illustrates the concept of diminishing returns. Participants represent buyers and must make budgeting decisions on what to consume, given a fixed budget. They must decide on qualities of goods to buy, what prices to pay for the goods, and how much money they should save. Their objective is to gain satisfaction points through purchasing goods at various prices.

Game: MARKET
Source: Digital Equipment Corporation
Subject: Market
Grade Level: Elementary—Junior-Senior High School
Playing Time: One-half to 2 Hours
Participants: 2-10
Cost: Individual packet $2.10; classroom packet $14.00

This computer-assisted game allows participants to engage in company decision-making. Two companies compete in single product competition. Price, inventory, and advertising decisions must be made.

Game: MARKETPLACE
Source: Joint Council on Economic Education
Subject: Economics, Economic Systems
Grade Level: Senior High School—College
Playing Time: 6-12 Hours
Participants: 20-50
Cost: $75.00

MARKETPLACE is a game which translates basic economic concepts participants read about in an introductory textbook into a series of transactions which simulate a microeconomic world. The economic concepts that are demonstrated by events in the game are supply, demand, dilemma of unlimited wants and limited resources, factors of production, circular flow of capital and goods, the functions of money, the influence of the profit motive, division of labor, and the market. Teams of participants role-play households or businesses (manufacturers, retailers, or banks). Through a process of buying and selling, participants acquire units of satisfaction. The team which acquires the most units of satisfaction by the end of the game is the winner.

Game: MERCHANT
Source: Interact
Subject: Free Enterprise and Competition
Grade Level: Junior-Senior High School
Playing Time: 15-25 Hours
Participants: 18-35
Cost: $20.00

MERCHANT is a simulation of small town businesses competing in a free market. Its intent is to increase understading of what life was like in a small frontier town, how general stores operated, and how free enterprise and competition between stores worked.

Game: MICRO-ECONOMY
Source: Harcourt Brace Jovanovich, Inc.
Subject: Market
Grade Level: Junior-Senior High School
Playing Time: Variable
Participants: 10-30
Cost: $39.00

This simulation allows participants to obtain jobs, purchase land, create and use goods and services, and allocate scarce resources. The result of the game is a society where each participant has had an input.

Game: MIDDLE EAST SIMULATION
Source: University of Missouri, Center for International Studies
Subject: The Middle East
Grade Level: Senior High School—Adult
Playing Time: 2 Hours +
Participants: 30-65
Cost: $2.00

This simulation examines the realities of the Middle East situation.

Game MONOPOLY
Source: Parker Brothers Games, Inc.
Subject: Investments
Grade Level Elementary, Junior-Senior High School
Playing Time: 30 minutes to unlimited time
Participants: 2 to 8 in an optional number of teams
Cost: Varies

This familiar, fun-to-play game offers a game structure which is easily adaptable to additional rules, roles, or events. It has been used to teach various economic concepts through such additions. The basic game is competitive and highly probabilistic and calls for decision making as well as bargaining by individual players.

Game: MR. BANKER
Source: Federal Reserve Bank of Minneapolis
Subject: Commercial Banking and Federal Reserve Policy
Grade Level: Junior-Senior High School
Playing Time: 4 forty-minute sessions
Participants: 6-30
Cost: $15.00

This simulation acquaints participants with the money and credit system of our nation and how it affects and is affected by changes in economic conditions. Its major objective is the deposit-money creation function of commercial banks and the need for a central monetary authority—the Federal Reserve System—to change the rate of growth of the money supply and the cost and availability of credit.

Game: MUCH ADO ABOUT MARBLES
Source: Gamed Simulations, Incorporated (Also available from EMI)
Subject: Comparative Systems
Grade Level: Senior High School—College
Playing Time: 2½ - 6 Hours
Participants: 20-40
Cost: $50.00

A symbolic interaction simulation in which the participants experiment with a variety of economic and political systems. Participants speculate in land, build up property values, establish courts, welfare, health, and education facilities.

Game: NATIONAL ECONOMY
Source: Didactic Systems, Inc.
Subject: Economics, National Economy
Grade Level: Senior High School
Playing Time: 2-5 Hours
Participants: Teams of 6
Cost: $12.00 for 30 participants plus teacher's guide $3.50

The purpose of the game is to aid understanding of the relationships between growth, inflation, national income, and unemployment. It also shows how activity in different kinds of industries can have different effects on the economy. A model is developed simulating a nation's economic atmosphere and conditions. Participants role-play representatives of the business community on an economic policy committee, separated into three industrial groups producing consumer, luxury, and producer goods. They must decide on the yearly level of investment in each of these sectors. Their objectives are to maintain full employment without inflation and to promote orderly growth of the economy.

Game: NEGOTIATE
Source: Stem (Also available from EMI)
Subject: Labor-Management Relations

Grade Level: Junior-Senior High School
Playing Time: 4-6 Hours
Participants: 12 +
Cost: $3.00

This is a simulation of late 19th Century labor-management relations in which participants negotiate between labor and management officials of the Fleet Packing Company in the processed pork and beef industry.

Game: NEW CITY TELEPHONE COMPANY
Source: Simile II (Also available from EMI)
Subject: Management, Decision Making
Grade Level: Junior-Senior High School
Playing Time: 2-4 Hours
Participants: 5-30
Cost: $15.00

In NEW CITY TELEPHONE COMPANY, participants take the roles of management teams responsible for running the company. Public relations and marketing, finance, personnel, and equipment are represented by the teams.

Game: NEW TOWN
Source: Harwell Associates, Inc. (Also available from EMI)
Subject: Community Planning
Grade Level: Junior-Senior High School—College
Playing Time: Three-fourths to 3 hours
Participants: 10-20
Cost $16.00 for 10 participants, $28.00 for 20 participants

NEW TOWN is a game of strategy involving the environmental, economic, social, and political factors in building a brand-new community. Participants bid on land, vote for public buildings, participate in open discussions, and make compromises which affect every player.

Game: NUTRITION INSURANCE
Source: Illinois Teacher
Subject: Health Insurance
Grade Level: Junior High School—Adult
Playing Time: 1-2 Hours
Participants: 2-20
Cost: $1.00

NUTRITION INSURANCE includes a set of insurance policies for health. Some participants represent insurance agents and try to sell their policies to others.

Game: PANIC
Source: Interact
Subject: Economics
Grade Level: Junior-Senior High School
Playing Time: 23 Hours
Participants: 25-36
Cost: $10.00

PANIC divides the class into economic pressure groups from different regions of the United States during the period 1920-1940. Students study the prosperity of the 1920's and the depression of the 1930's. The simulation culminates in mock Congressional committees and a mock Congress trying to solve the economic crisis.

Game: PAYDAY
Source: Parker Brothers Games (Also available from EMI)
Subject: Budgeting
Grade Level: Junior—Senior High School
Playing Time: Variable
Participants: 2-4
Cost: $8.00

This game of "Where Does All the Money Go?" makes earning money and paying bills fun. Players collect monthly paychecks, but the bills keep rolling in by mail. The whole gamut of real-life household expenses is included.

Game: PAYING YOUR WAY
Source: Gregg Division, McGraw-Hill Book Company
Subject: Money Management
Grade Level: Senior High School—Adult
Playing Time: 1-2 Hours
Participants: 6-8
Cost: $15.95

PAYING YOUR WAY is an innovative, challenging, and fun way of teaching students how to manage their money. Participants are stimulated to learn not only about making the right decisions for managing their money wisely but also about dealing with necessary records.

Game: THE PINK-BERRY CRISIS
Source: Stem (Also available from EMI)
Subject: Labor-Management Relations
Grade Level: Junior-Senior High School
Playing Time: 4-6 Hours
Participants: 8 +
Cost $3.00

THE PINK-BERRY CRISIS simulates a labor-management dispute concerning the harvesting of the pink berries. Each participant seeks to resolve the problem from a personal point of view and is concerned with health, housing, and pay.

Game: PINK PEBBLES
Source: Education Ventures, Inc. (Also available from EMI)
Subject: Money
Grade Level: Elementary—Junior High School
Playing Time: One-half to 1 hour
Participants: 2-6 (board version), 36 (classroom version)
Cost: $8.00 for board version $9.95 for classroom version

Participants in PINK PEBBLES begin as "primitive farmers" trying to attain subsistence through settled farming. Progressing through seven levels of activity, they gain time to start handicrafts, to accumulate surpluses, to barter, and finally to specialize as owners of "stores" in an evolving market economy. Along the way, they find "pink pebbles"—meaningless at first but increasingly important as need grows for a medium of exchange.

Game: POLLUTION
Source: Simulation System Program
Subject: Environment, Quality of Life
Grade Level: Junior-Senior High School
Playing Time: 2 Hours
Participants: 4-32
Cost: $22.50

This game, built around a series of negotiation sessions, orients participants to the increasing emphasis being placed on the environment and quality of life. It provides participants with an opportunity to understand some of the problems in coping with air, water, land, and visual pollution. The game allows participants to experience the trade-offs between personal/corporate goal satisfaction and environmental quality. The developers of the game attempted to suit it to learners having little or no experience in the area.

Game: POLLUTION GAME
Source: Games Central
Subject: Costs of Pollution and Abatement Programs
Grade Level: Junior-Senior High School
Playing Time: 1-3 Hours
Participants: 12-16
Cost: $30.00

The game presents community consequences of different forms of pollution—air, water, noise—and of abatement programs. Participants role-play residents, businesspeople, industrialists, etc., in the community which is mapped out on a game board. Participants are faced with the dilemma of high short-term costs for abatement programs as compared to disastrous long-term effects of unabated pollution.

Game: POLLUTION GAME
Source: Houghton Mifflin Company
Subject: Ecology
Grade Level: Junior-Senior High School
Playing Time: 1-2 Hours
Participants: 4-6
Cost: $9.80

POLLUTION GAME involves participants in today's ecological crises. As they try to improve environmental quality, the profit motive complicates their efforts.

Game: PROFIT, A Simulation of Modern Trading in Southeast Asia
Source: American Universities Field Staff
Subject: International Trade; Imports, Exports
Grade Level: Senior High School—College
Playing time: One class period minimum.
Participants: 20 or more
Cost: $49.00 includes this and three other simulation games and supporting materials comprising a unit of study on Southeast Asia

Participants role-play Ministers of Trade of seven Southeast-Asian nations, trading agents from seven industrialized nations, and six service agents, such as bankers, who facilitate transactions. Modern economics are presented in a Southeast-Asian context.

Game: PRODUCTION
Source: Good Time Educators
Subject: The Market System
Grade Level: Junior-Senior High School
Playing Time: 2-5 Hours
Participants: 5 to 30 in 5 to 10 teams
Cost: $50.00

PRODUCTION is a game which helps players understand the way in which the market system interrelates. Decisions to be made include what product or resource to sell, how much to sell it for, who should get the product or resource, and what to make the product out of.

Game: PROTECTION
Source: Available from EMI
Subject: Consumer and Business Protection
Grade Level: Junior—Senior High School
Playing Time: Variable
Participants: Whole classes divided into teams
Cost: $8.00

This simulation not only addresses itself to a consideration of various factions' interest in consumer protection, it also is structured so that students learn how "administrative law" is made by a government agency of the excutive branch.

Game: RAILROAD GAME
Source: American Education Publications
Subject: Competition and Profit Motive
Grade Level: Junior-Senior High School
Playing Time: 1-3 Hours
Participants: 10-35
Cost: $0.30 per participant

Participants play the roles of managers of four railroads during the 19th Century, bidding against each other to get the haul and to turn a profit.

Game: RATE YOUR CREDIT
Source: Illinois Teacher
Subject: Credit
Grade Level: Junior-Senior High School—Adult
Playing Time 1-2 Hours
Participants: 2 +
Cost: $2.00

RATE YOUR CREDIT is a two-part activity which deals with the components of credit ratings. Participants learn about credit ratings, rate themselves for credit, and try to improve their ratings on certain factors which determine whether one can secure credit.

Game: REAL ESTATE
Source: Jay Reese
Subject: Careers in Real Estate
Grade Level: Elementary—Junior High School
Playing time: 1-3 Hours
Participants: 2-6
Cost: $2.00

REAL ESTATE is a card game focusing on careers. Participants are real estate salespersons who try to be the first to sell all of their listings.

Game: RIP OFF
Source: Union Printing Company, Inc.
Subject: Advertising
Grade Level: Elementary—Junior-Senior High School—Adult
Playing Time: 1-3 Hours
Participants: 2-6
Cost: $7.50

In this activity, participants draw cards which contain paraphrases of popular advertising slogans or sales pitches and are asked to identify the type of appeal used in the ad.

Game: SACRIFICE
Source: Education Ventures, Inc.
Subject: Environment
Grade Level: Junior-Senior High School
Playing Time: 2-4 Hours
Participants: 10-100
Cost: $4.95

SACRIFICE is an environmental conflict game that divides the class into the kinds of interest groups that make up a real community: manufacturers, public utility executives, small businesses, public officials, and various consumer-voter groups. Acting on the basis of their own values and attitudes, these groups attempt to reach consensus on the "right" solution to environmental problems which concern the entire community. No group is made up of "bad guys"; all want to solve the problems raised in five successive rounds: industrial water pollution, bottle and tin-can recycling, downtown traffic jams, expansion of electrical power production, and the use of conservation funds. Yet the groups must overcome various differences about interests and values if they are to achieve agreement and action.

Game: SCARCITY AND ALLOCATION
Source: Didactic Systems, Inc.
Subject: Economics
Grade Level: Senior High School
Playing Time: 2-5 Hours
Participants: Teams of 6
Cost: $12.00 for 30 participants plus teacher's manual $3.50

The objective is to increase the standard of living of a group of people stranded on an island. Savings are measured in hours, which, although they cannot be saved, can be spent for projects that lift the castaways above the survival level. Participants must make decisions on how to allocate time among hunting, fishing, farming, food collecting, and tool making. The game attempts to highlight the meaning of saving and investment and the relationships between these two economic activities.

Game: SCARCITY AND THE MARKET
Source: Good Time Educators
Subject: Inflation
Grade Level: Junior-Senior High School
Playing Time: 20-40 Minutes
Participants: 2-5
Cost: $5.00

The objective of SCARCITY AND THE MARKET is to obtain the most wealth by the proper application of the principles of minimizing inflation. The player is forced to work under the effects of inflation. He may come to control it for the maximum benefit of the group, or he may decide to maximize his own benefit at the cost of the group. He thus gains an understanding of inflation and its impact.

Game: SECURITY
Source: Community Service Volunteers
Subject: Unemployment
Grade Level: Junior High School
Playing Time: 1 Hour
Participants: 2-6
Cost: 2 ½ pounds plus postage

This game deals with the problem of unemployment. Sickness and going to the hospital, increases in rents, and cuts in benefits are some of the disadvantages written into the board game.

Game: SETTLE OR STRIKE
Source: Games Central (Also available from EMI)
Subject: Collective Bargaining
Grade Level: Junior-Senior High School—College
Playing Time: Open
Participants: 6-32
Cost: $46.50

This game is a role-play simulation of the collective bargaining process. Role teams represent union local and Lastik Plastic Co., as they try to reach agreement on five contract issues: wages, union security, seniority, vacations, and contract duration.

Game: SHARE THE RISK
Source: Changing Times Education Service (Also available from EMI)
Subject: Insurance
Grade Level: Junior-Senior High School
Playing Time: 3-5 Hours
Participants: 8 +
Cost: $8.95

The game stresses the concepts of decision-making, risk-sharing, and chance-taking as they relate to the insurance area. The insurance types included are life, health, property, and liability.

Game: SHARP SHOPPER
Source: Gillum Book Company
Subject: Consumer Problems
Grade Level: Junior-Senior High School
Playing Time: 1 Hour +
Participants: 4
Cost: $6.65

In this game, participants visit the Sharp Shopping Mall and deal with typical consumer problems while advancing through the food, clothing, shelter-home, and finance sections.

Game: SIMULATED AGRIBUSINESS
Source: Available from EMI
Subject: Agriculture
Grade Level: Junior—Senior High School
Playing Time: Variable
Participants: Any Number
Cost: $30.00

SIMULATED AGRIBUSINESS is a competitive game that can be played by any number of individuals or groups on a hypothetical mid-latitude diversified farm in a capitalistic system. The players are faced with decisions which will determine their successes or failures.

Game: SOCIETY TODAY
Source: Dynamic Design Industries
Subject: Economic Success
Grade Level: Junior-Senior High School
Playing Time: 1-2 Hours
Participants: 4-20
Cost: $7.95 plus shipping and handling

The participants of this game attempt to maximize their economic gains by taking advantage of all opportunities and staying clear of pitfalls. Knowledge of people and events, confidence, skills, and luck all contribute to successful play.

Game: THE SPRING GREEN MOTORWAY
Source: Community Service Volunteers
Subject: Environmental Community Planning
Grade Level: Junior High School
Playing Time: 1 Hour
Participants: 20-30
Cost: 40 pence plus postage

A role-playing simulation in which all community members make decisions as to where the new motorway should be located.

Game: STARPOWER
Source: Simile II (Also available from EMI)
Subject: Distribution of Wealth
Grade Level: Junior-Senior High School
Playing time: 1-2 Hours
Participants: 18-35
Cost: $25.00 for 18-35 participant kit

This game involves students in the operation of a low-mobility, three-tiered society built upon the distribution of wealth in the form of chips. Participants have a chance to progress from one level of society to another by acquiring wealth through trading with each other. Once the society is established, the group with the most wealth is given the right to make the rules of the game. The purpose of the game is to serve as a device for raising questions about the uses of power in a competitive society.

Game: STOCK BROKER
Source: Chartwell American Corporation (Also available from EMI)
Subject: The Stock Market
Grade Level: Senior High School—Adult
Playing Time: 1-3 Hours
Participants: 2-6
Cost: $12.50

This game is based on buying and selling large blocks of shares, the values of which rise and fall in the process. Participants move around a board buying and selling shares, etc.

Game: STOCKMARKET
Source: Jasper M. Rowland
Subject: Stockmarket Activities
Grade Level: Junior-Senior High School
Playing time: 1 Hour to unlimited time
Participants: 3-10
Cost: $6.98, with school discounts available

This simulation proposes to teach the fundamentals of the stock market. The play involves skill, bargaining, and decision making.

Game: STOCKMARKET GAME
Source: Avalon Hill Company (Also available from EMI)
Subject: Security Investments
Grade Level: Junior-Senior High School
Playing Time: 2 Hours
Participants: 1-6
Cost: $10.00

This game attempts to reveal how the stockmarket works and what causes prices to rise and fall. Participants act as stockmarket investors who buy and sell securities in an attempt to accumulate the greatest net worth.

Game: STOCKS AND BONDS
Source: 3M Company
Subject: Stocks and Bonds
Grade Level: Junior-Senior High School
Playing Time: 30 Minutes to 1 Hour
Participants: 2-8-may be adapted to accommodate more players
Cost: $8.95

The objective is to make the most money by the end of the game by successfully investing in the game's ten securities. The participant learns principles of the stock market and reinforces math knowledge.

Game: STRIKE
Source: Interact
Subject: American History, Economics, Collective Bargaining
Grade Level: Junior-Senior High School
Playing Time: 20 Hours
Participants: 20-40
Cost: $10.00

STRIKE simulates a late 19th Century environment with two towns; one having a steel mill, the other a coal mine. Participants play roles with conflicting goals: owners, managers, foremen, workers, and unemployed. Horatio Alger effort and chance can help participants become economically successful. A contemporary case study is utilized to illustrate changes in labor-management relations.

Game: STRIKE
Source: Macmillan Publishing Company, Inc.
Subject: Labor-Management Relations
Grade Level: Senior High School—Adult
Playing Time: 4-6 Hours
Participants: 16-40
Cost: $21.00/kit, $5.40/10 participants' manuals

In STRIKE, three companies and three local unions come into conflict; and a strike is declared. The entrie simulation consists of the negotiation efforts to end this strike.

Game: SUBSISTENCE
Source: Benefic Press
Subject: Economics
Grade Level: Elementary—Junior High School
Playing Time: 1½ to 2 Hours
Participants: 4-8
Cost: Unknown

SUBSISTENCE proposes to teach basic economic relationships and concepts. The player's objective is to make decisions that will contribute to the survival of the family. Each player decides what activities the productive members of the group will engage in during each round.

Game: SUPERMARKET
Source: Games Central (Also available from EMI)
Subject: Consumer Economics
Grade Level: Elementary—Junior High School
Playing Time: 1-3 Hours
Participants: 2-32
Cost: $79.00

Shopkeepers mark prices, arrange displays, and check out shoppers' groceries while other participants shop in a simulated supermarket with tokens. Randomly chosen shopping lists are distributed which present at least one problem involving a tradeoff in cost, quality, or quantity.

Game: SWINDLE
Source: Changing Times in Education Service

Subject: Fraud
Grade Level: Junior-Senior High School—Adult
Playing Time: 2-3 Hours
Participants: 15 +
Cost: $8.95

SWINDLE focuses on how to spot and avoid gyps and frauds when purchasing products and investing in money-making opportunities.

Game: TAXES
Source: Interact
Subject: Taxation
Grade Level: Senior High School—Adult
Playing Time: 5-7 Hours
Participants: 20-40
Cost: $8.00

In this simulation of the emotionally charged decision making associated with taxation, participants learn the major kinds of taxes that various levels of American government have levied or have considered levying.

Game: THEY SHOOT MARBLES, DON'T THEY?
Source: Urbex Affiliates, Inc. (Also available from EMI)
Subject: Economics, Society
Grade Level: Junior-Senior High School—Adult
Playing Time: 3-8 Hours
Participants: 15-25
Cost: $40.00

This is a sophisticated, symbolically structured game in which participants design their own society. Marbles are the medium of exchange. The intent of the game is to provide an opportunity to create a society and develop an awareness and an understanding of the difficulties involved in that complex process.

Game: TIGHTROPE
Source: Hartmann, Clinton
Subject: Monetary and Fiscal Policy
Grade Level: Senior High School
Playing Time: 1-3 Hours
Participants: Minimum of 3
Cost: Contact the Developer

TIGHTROPE is a simulation representing various historical periods of economic activity. The role of participants is to act as economic advisors to maintain economic stability and growth. They must make policy decisions dealing with periods of depression, recession, uncontrolled inflation, moderate inflation, and moderate unemployment, or conditions of stability and reasonable growth.

Game: TRADE
Source: Interact
Subject: International Commerce
Grade Level: Junior-Senior High School—Adult
Playing Time: 15-25 Hours
Participants: 18-35
Cost: $12.00

TRADE simulates the pressures and procedures of international commerce. In a microcosm of the real world, participants face typical trade problems of our times.

Game: TRADE AND DEVELOP
Source: Academic Games Associates, Inc.
Subject: Economics
Grade level: Junior-Senior High School
Playing Time: 30 Minutes to 1 Hour
Participants: 4-12
Cost: $4.00, available by mail only

TRADE AND DEVELOP illustrates concepts of economic specialization, marginal return, diminishing returns, and investment on a national scale.

Game: TRADE OR FIGHT
Source: Stem (Also available from EMI)
Subject: International Commerce
Grade Level: Junior-Senior High School
Playing Time: 2-5 Hours
Participants: 20 +
Cost: $3.00

Participants form into countries which have a differing supply of resources. They make decisions to use these resources in trading, manufacturing, and/or fighting.

Game: TRANSACT
Source: Addison-Wesley Publishing Company
Subject: Market
Grade Level: Junior-Senior High School—College
Playing Time: 1 Hour
Participants: 20-48
Cost: $6.00

TRANSACT simulates a wholesale market with cords of wood representing the product being sold. Buyers attempt to purchase cords of wood at the lowest cost possible, while sellers try to get the highest price they can. As each attempts to minimize cost or maximize profit, the market tends to stabilize or move toward equilibrium where the prices sellers are asking and buyers are offering are the same.

Game: TRANSACTION: THE WALL STREET GAME
Source: Study-Craft Educational Products
Subject: Stocks and Bonds
Grade Level: Junior-Senior High School—College
Playing Time: 30 minutes minimum, no maximum
Participants: 1-25 in teams of 3-5 each
Cost: $10.00

The purposes of this game are to increase skill in and knowledge about stockmarket trading, to expose players to the problems involved in all areas of the financial world, and to teach players the art of negotiation to obtain power in relation to positions within their own companies and in the political structure of the state and nation. Players represent stockbrokers, advisers, etc.; teams represent corporations, stock exchanges, political groups, etc.

Game: TRANSPORTATION GAME
Source: Games Central (Also available from EMI)
Subject: Travel Costs Comparison by Mode
Grade Level: Elementary—Junior High School
Playing Time: 1-3 Hours
Participants: 8-34
Cost: $16.00

The game involves participants in planning, arranging, and "taking" trips via different modes of passenger transportation. Participants are presented with specific transportation problems for which arrangements must be made with other students who act as agents for different travel modes—car, bus, railroad, or airplane.

Game: TRUTH IN ADVERTISING
Source: Law in American Society Foundation
Subject: Federal Trade Commission
Grade Level: Senior High School—Adult
Playing Time: 2-4 Hours
Participants: 7-45
Cost: Journal Article, *Law in American Society*, November, 1974

This activity focuses upon the role of the F.T.C. in ferreting out deceptive advertising. It proposes to familiarize participants with the role of the F.T.C. and to help them develop a personal definition of deceptive advertising.

Game: ULCERS
Source: House of Games, Ltd. (Also available from EMI)
Subject: Personnel Management
Grade Level: Junior-Senior High School
Playing Time: 1-2 Hours
Participants: 2-4
Cost: $6.00

The objectives of ULCER are to acquire employees to fill vacancies in the staff, to raid opponents' employees and deprive them of staff, and to be successful in business ventures to acquire money.

Game: UNDERSTAND HOW YOUR ECONOMY WORKS
Source: Available from EMI
Subject: Our Economic System
Grade Level: Junior—Senior High School
Playing Time: Variable
Participants: 20-30 in 4-6 teams
Cost: $65.00

Using a gameboard design and four to six teams of students bidding for and auctioning off goods, various economic and real-life conditions are simulated. Each member of the class is assigned a specific role. The students learn what makes our economy tick and what causes it to falter.

Game: VENTURE
Source: The Proctor and Gamble Company
Subject: Business Operations
Grade Level: High School—College
Playing Time: Variable
Participants: 20 divided into 2-5 teams
Cost: Unknown

VENTURE proposes to develop a practical understanding of business operations. The players represent major national manufacturers in a consumer products industry. With the objectives of maximizing product sales, sales income, and gross profit, the players make decisions regarding production, costs, marketing, research, and allocation of profit.

Game: WELFARE WEEK
Source: Gamed Simulations, Incorporated (Also available from EMI)
Subject: Welfare
Grade Level: High School-College
Playing Time: Two 2-hour sessions
Participants: 6 +
Cost: $13.50

Participants simulate living on a welfare budget. They must go through intake, are given a caseworker, and are assigned a budgetary allotment. Periodic crises force the players to make crucial financial decisions.

Game: WHEAT GAME
Source: Joint Council on Economic Education
Subject: Agriculture, Supply and Demand
Grade Level: Junior-Senior High School—College
Playing Time: 1-3 Hours
Participants: 20-60
Cost: $4.50 including teacher's manual

WHEAT GAME is a role-playing simulation in which students participate as buyers and sellers of wheat in a purely competitive market. The objective of this game is to simulate how a market will reach an equilibrium price level. This exercise is available in *Teacher's Manual, Reading in Economics for 12th Grade Students of American Democracy* (Pittsburgh DEEP materials), and in *American Economic Review* (May, 1965).

Game: WHEELS
Source: Paul S. Amidon & Associates, Inc. (Also available from EMI)
Subject: Personal Economics
Grade Level: Senior High School
Playing Time: 2-4 Hours

Participants: 1-35
Cost: Sample set $2.50, complete series $46.00

This computer-based simulation is designed to provide students with experience in purchasing and maintaining a car successfully for one year. The experience includes purchase of car, selection of method of financing, choice of insurance, and provision for running expenses. The computer randomly assigns accidents, major repairs and unexpected events, and calculates running expense. It is also available through Honeywell time-sharing (EDINET) Centers. The game may also be played without a computer—hand scored.

Addresses of Simulation Game Publishers

Academic Games Associates, Inc.
430 East 33d Street
Baltimore, MD 21218

Addison-Wesley Publishing Company
2725 Sand Hill Road
Menlo Park, CA 94025

American Education Publications
55 High Street
Middletown, CT 06457

American Universities Field Staff
3 Lebanon Street
Hanover, NH 03755

Paul S. Amidon & Associates, Inc.
5408 Chicago Avenue, South
Minneapolis, MN 55417

Avalon Hill Company
4517 Harford Road
Baltimore, MD 21214

Benefic Press
10300 West Roosevelt Road
Westchester, IL 60153

Berkeley Gaming Project
Institute of Urban and Regional Development
316 Wurster Hall
University of California
Berkeley, CA 94720

Board of Cooperative Educational Services
(BOCES)
845 Fox Meadow Road
Yorktown Heights, NY 10598

The Bobbs Merrill Company
4300 West 62nd Street
Indianapolis, IN 46268

Brite Games
Box 371
Moline, IL 61265

Changing Times Education Service
Department C
1729 H Street, N.W.
Washington, DC 20006

Chartwell American Corporation
59 East 54th Street
New York, NY 10022

Classroom Dynamics Publishing Company
231 O'Conner Drive
San Jose, CA 95128

Community Service Volunteers
237 Pentonville Road
London N1 9NJ, England

Computer Games, Inc.
P.O. Box 544
Chicago Heights, IL 60411

CRAC (Careers Research and Advisory Centre Ltd.)
Bateman Street
Cambridge, England

CUNA Mutural Insurance Society
5190 Mineral Point Road, P.O. Box 391
Madison, WI 53701

Curriculum Development Associates, Inc.
Suite 414
1211 Connecticut Avenue, N.W.
Washington, DC 20036

Damon/Educational Division
80 Wilson Way
Westwood, MA 02090

Didactic Systems, Inc.
Box 4
Cranford, NJ 07016

Digital Equipment Corporation
(Huntington Computer Project)
146 Main Street
Maynard, MA 01754

Dynamic Design Industries
1433 N. Central Park
Anaheim, CA 92802

Education Ventures, Inc.
209 Court Street
Middletown, CT 06457

Educational Games Company
Box 363
Peekskill, NY 10566

Educational Methods
500 N. Dearborn Street
Chicago, IL 60610

Edu-Game
P.O. Box 1144
Sun Valley, CA 91325

EMI (Educational Manpower, Inc.)
P.O. Box 4272
Madison, WI 53711

Entelek Incorporated
42 Pleasant Street
Newburyport, MA 01950

Federal Reserve Bank of Minneapolis
250 Marquette Avenue
Minneapolis, MN 55480

The Free Press
(A Division of Macmillan Publishing Co., Inc.)
866 Third Avenue
New York, NY 10022

Gamed Simulations Incorporated
P.O Box 1747, F.D.R. Station
New York, NY 10022

Games Central
c/o Abt Associates, Inc.
55 Wheeler Street
Cambridege, MA 02138

Gillum Book Company
P.O Box 4504
Kansas City, MO 64124

Good Time Educators
c/o Bob Rienke
Rt. 2
Monticello, MN 55362

Gregg Division
McGraw-Hill Book Company
Princeton Road
Hightstown, NJ 08520

Harcourt Brace Jovanovich, Inc.
757 Third Avenue
New York, NY 10017

Hartmann, Clinton
Education Center
100 West Rio Grande
El Paso, TX 79902

Harwell Associates, Inc.
Box 95
Convent Station, NJ 07961

History Simulations
P.O. Box 2775
Santa Clara, CA 95051

Holt, Rinehart and Winston, Inc.
383 Madison Avenue
New York, NY 10017

Houghton Mifflin Company
110 Tremont Street
Boston, MA 02107

House of Games, Ltd.
3135 Universal Drive
Mississauga (Toronto), Ontario
Canada

Illinois Teacher
Education Building
University of Illinois
Urbana, IL 61801

Instructional Simulations, Inc.
2147 University Avenue
St. Paul, MN 55104

Interact
P.O. Box 262
Lakeside, CA 92040

Joint Council on Economic Education
1212 Avenue of the Americas
New York, NY 10036

John Knox Press
Box 1176
801 East Main Street
Richmond, VA 23209

Law in American Society
33 North LaSalle Street, Suite 1700
Chicago, IL 60602

Leswing Communications
750 Adrian Way
San Rafael, CA 94903

The Macmillan Publishing Company, Inc.
866 Third Avenue
New York, NY 10022

National Council for the Social Studies
1201 16th Street, N.W.
Washington, DC 20036

Parker Brothers Games
190 Bridge Street
Salem, MA 01970

Prentice-Hall, Inc.
Englewood Cliffs, NJ 07632

The Proctor and Gamble Company
P.O. Box 599
Cincinnati, OH 45201

Reese, Jay
3235 West 17th Avenue
Eugene, OR 97402

Reiss Games
1482 N. Batavia
Orange, CA 92669

Rowland, Jasper M.
1545 Harmony Road
Akron, OH 44313

Science Research Associates, Inc.
259 East Erie Street
Chicago, IL 60611

Scott, Foresman and Company
1900 East Lake Avenue
Glenview, IL 60025

Simile II
218 12th Street
P.O. Box 910
Del Mar, CA 92014

Simulation/Gaming/News
P.O. Box 3039
University Station
Moscow, ID 83843

Simulation System Program
P.O. Box 1028
Corvallis, OR 97330

South-Western Publishing Co., Inc.
5101 Madison Road
Cincinnati, OH 45227

Stem
P.O. Box 393
Provo, UT 84601

Study-Craft Educational Products
R1-683, Tusson Research Center
Belle Chasse, LA 70037

3M Company
3M Center
St. Paul, MN 55101

Union Printing Company, Inc.
17 West Washington Street
Athens, OH 45701

University of Alberta
Division of Educational Research Services
Edmonton, Alberta, Canada

University of Missouri
Center of International Studies
St. Louis, MO 63121

Urbandyne
5659 South Woodlawn Avenue
Chicago, IL 60637

Urbex Affiliates, Inc.
P.O. Box 2198
Ann Arbor, MI 48106

Washington State University
Cooperative Extension Service
Pullman, WA 99163

MODEL OFFICE SIMULATIONS

Model office simulations provide both a unique and an enjoyable method for the development of on-the-job competencies.

Model office, flow-of-work, simulations emphasize the interrelation of skills as they are used in an office. They provide for the ultimate experience in the sequencing of learning by enabling the student to gain total job practice.

Erickson notes, "The content of an office education program is appropriate to the degree that the vocational competencies acquired in the course are those that are actually needed for successful performance in an office."[1] What better procedure is available for a business teacher to determine if students have gained competencies required on the job than to have the students participate in a model office simulation. Not only will the participation require the integrated use of basic office skills and knowledges, but it will also require an understanding of how to adapt to the personal relationships that can affect office performance.

As explained by Hanson and Parker, office staffs work as teams. The individual worker must adjust to performing an assigned task in accordance with established procedures and in harmony with the wishes and needs of other individuals and the requirements of other tasks. To adjust to this environment, future office workers need an understanding of human relationships created by the office situation and an understanding of the way many office and other business functions are interrelated.[2] A model office simulation, carefully selected, implemented, adapted, and evaluated can meet this need.

"For more than 50 years, scores of business educators have espoused the usefulness of class simulations but offered few concrete suggestions or instructional materials to support this thesis,"[3] states Moscovis. The pages that follow are intended to help remedy the first of these problems, they provide many concrete suggestions for the use of model office simulations. As for instructional materials available for model office simulations, these, too, are identified and reviewed in the final sections of this guide.

The preceding discussion has stressed the serious side of model office simulation use. The business teacher will find that the simulations provide both a unique mehtod for students to develop on-the-job competencies and an enjoyable method. The suggestions that follow are aimed at assisting the business teacher in using a creative instructional approach to meet student needs.

[1]Laurence W. Erickson, "Improving the Content of the High School Office Education Program," *The Emerging Content and Structure of Business Education*, National Business Education Association Yearbook, Vol. 8, (Washington, D.C. 20036, 1970), p. 216.

[2]Garth A. Hanson and E. Charles Parker, "Simulation," *Changing Methods for Teaching Business Subjects*, National Business Education Association Yearbook, Vol. 10, (Washington, D.C. 20036 1970), pp. 223-239.

[3]Michael Moscovis, "Simulations Revisted," *The Balance Sheet*, LII (November, 1970), P. 104.

Selecting Model Office Simulations

A worthwhile model office simulation will provide numerous opportunities for each student to develop and use competencies as required on the job.

The selection of a model office simulation is typically based upon several criteria: objectives, time available, number and ability of students, cost of the simulation and associated materials, available facilities, and the experience of the teacher during the tryout of the materials.

Objectives. Obviously the job objectives of the instuctional program will be the major determining factor in selecting the model office simulation. The teacher should study all available simulations to determine which are best suited for the objectives of the occupational preparation program. For example, some simulations are better geared to stenography programs because of the numerous opportunities for students to take dictation and to transcribe. Others contain many typing activities which gear the simulation to a program for preparing students for typewriting and related occupations. Still other simulations contain numerous accounting and data processing applications and should be considered for programs that have as their major objectives preparation of accounting and data processing employees.

On page 44, the first page of a rating sheet designed to help the teacher assess the competencies that can be developed in comparable simulations is shown. Through the use of the rating sheet, a teacher can

CHECKSHEET FOR ASSESSING INSTRUCTIONAL MATERIALS TO DETERMINE IF STUDENTS ARE PROVIDED OPPORTUNITIES TO DEVELOP COMPETENCIES DESIRED

_____

(Course/Instructional Unit Title)

_____

(D.O.T. Job Title)

TASK*	Task Importance**	Task Difficulty**	Degree to which Materials Provide Opportunities for Students to Develop Competence in Identified Tasks: Simulation A	Simulation B	Simulation C	Simulation D		
ORGANIZING AND PLANNING								
___1. Determine requirements and layout for office furnishings (includes planning, budgeting, and diagramming.)								
___2. Determine requirements for and utilization of equipment and supplies (includes analyzing needs, supervision of usage, and evaluating results).								
___3. Plan layout and makeup of materials to be printed, such as forms, catalogs, promotional materials.								
___4. Plan work for yourself (schedule, perform, and evaluate).								
SUPERVISION AND IMPLEMENTING								
___5. Prepare accident report form.								
___6. Prepare requisitions.								
___7. Plan and schedule work assignments and priorities (for others).								
___8. Assign work to others (includes instruction).								

*Tasks listed are from the V-TECS catalog for secretarial, stenographic, typing, and related occupations.
**Stanine values for task importance and task difficulty are provided in the V-TECS catalog.

determine which of several simulations provides the most opportunities for students to develop desired competencies. In the example, simulations to be compared are identified as A, B, C, and D, and the tasks are listed from the Vocational-Technical Education Consortium of States (V-TECS) catalog for secretarial, stenographic, typing, and related occupations.[1] The V-TECS catalogs also list task importance and task difficulty stanines for various occupations included in them. Columns are provided to record this information. The columns at the right are then completed on a low to high scale for the simulations under consideration. A scale of 1 to 6 for low to high inclusion of each task in the simulation is suggested. After completing the instrument for all competencies under consideration for each simulation, the teacher can study the rating sheet to determine the degree to which each provides opportunities for students to develop competence in identified tasks.

The simulation that ranks highest for the inclusion of most of the desired tasks is the one that should be selected first. The rating scale will also prove helpful in the identification of competencies that students need to develop that are not included in the simulations under consideration.

Time Available. Most simulations can be expanded or contracted in length of time over what the publisher recommends. Nonetheless, some simulations have been written for full-year programs, while others have been prepared for much shorter time periods. Therefore, it is up to the teacher to select a simulation that is designed for approximately the time available. Otherwise, much adaptation will become necessary.

Number and Ability of Students. Published simulations are flexible in that various numbers of students can use any one simulation. The teacher should become familiar with the minimum and maximum number of students that can participate in each simulation and select accordingly. Sometimes the class can be split into two groups with each group operating a simulation independently of the other group. The advantage of this plan is to expose each student to a greater range of activities and responsibilities during a shorter period of time. The disadvantage, of course, is that the teacher, or office manager, has to take on the additional responsibility of supervising two simulations at the same time. Student ability and student job objectives should be taken into account when planning the duration of the simulation and specific student assignments. For example, some students might benefit more from a simulation if they are assigned to only one or two jobs rather than the full range of jobs. Others might benefit from spending most of the time in a supervisory type of position with a wide range of responsibilities. Previous courses, job objectives, and work experiences of the students are also considered in the selection of a model office simulation.

Cost of Simulations and Associated Materials. Hidden costs often appear after the simulation is under way. Factors such as reusability, duplication of materials, and use of supplies can affect cost. The teacher should, therefore, try to predict and estimate total costs involved in the use of any commercial or teacher prepared simulation. The identification and budgeting of total simulation costs in advance is a necessity.

Available Facilities. A good model office simulation can be operated with a bare minimum of facilities. However, some simulations require equipment that may not be available, while other simulations may be used with or without special equipment. The section of the guide on the model office facility discusses model office equipment and facilities in more detail. The appropriate philosophy of the teacher regarding facilities is to determine the best simulation for the students and then to try to obtain the facilities that are necessary to do the best possible job with that simulation.

Experience During Tryout. Possibly, the most important factor in selecting a model office simulation is the experience of the teacher during the time that the simulation is used on a trial basis with a group of teachers. The necessity of using a simulation before a selection is made cannot be over stressed. Examination of an employee manual and employer manual for a simulation will not give the teacher an accurate picture of how the simulation will work in class. The only way to gain this "feel" for a simulation is to get together with a small group of teachers and to operate the simulation, at least for a few days. Experiences encountered in the operation of the simulation can then be evaluated and appropriateness of the simulation for the intended students can be assessed.

Final selection of a model office simulation should be based primarily on the objectives of the instruction. Although experiences of others are important, selection of a simulation cannot be based on the reports of others who have used a simulation. The appropriate simulation is chosen on the basis of the factors enumerated above, and above all, is based upon requirements of the students for job entry.

[1] *A Catalog of Performance Objectives, Criterion-Referenced Measures and Performance Guides for Secretarial, Stenographic, Typing, and Related Occupations* (Blacksburg, Virginia 24061: Virginia Polytechnic Institute and State University; and Richmond, Virginia 23216: Division of Vocational Education and Division of Educational Research and Statistics, State Department of Education, July, 1975).

Using Model Office Simulations

The successful use of a model office simulation requires the total involvement of the employees (students) and the principal (teacher).

This discussion on using model office simulations is divided into five parts: Implementation, including presimulation activities; adaptation; daily management; closing procedures; and enrichment activities.

Implementation, including pre-simulation activities. Once the simulation has been selected, the teacher should become thoroughly familiar with it. A teacher unfamiliar with a simulation who uses it with students will find that numerous problems will arise that are unforeseen. Knowledge of the activities and responsibilities of each work station is essential so that the students can be effectively oriented to each. Next, the teacher positively and artfully presents the simulation to the students. The teacher conveys to the students characteristics of the simulation atmosphere as follows:

1. What the simulation is.
2. That the office to be simulated is an essential part of a certain type of business.
3. The idea that the teacher is no longer to be considered the "teacher."
4. The idea that the students are no longer "students."
5. That students will apply for office positions as they exist in the business organization simulated.
6. As employees, the former students will help develop the office policies and procedures of the organization simulated.

Job descriptions and applications are made available to all students and the students are encouraged to apply for jobs for which they are qualified. Also, they are encouraged to apply for other positions that are of special interest to them on an individual basis. Once the teacher has received applications for employment from the students, the teacher can invite a personnel director from a local business to interview each student. The teacher instructs the students in job application procedures to insure that they are familiar with the preparation of a letter of application, resume, and personal behavior during the interview. After the students have been interviewed, each is informed, preferably in writing, of the position to be offered. The letter indicates the position, employee number, and salary.

Another activity to add realism to this phase of the simulation is the introduction of employment tests. A sampling of the employment tests of local businesses can beneficially be used for this purpose.

For many simulations, policy and procedures for office operation must be established. Each employee should have a part in the development of the policy and procedures. If they have already been established in a published simulation, then some modification of them is probably desirable. Each employee should feel that suggestions and contributions concerning company policy and procedures are always welcome.

Once the employee positions have been assigned and the new employees are familiar with the general characteristics of the simulation, the initial on-the-job training (OJT) phase is begun. Detailed below are seven specific types of OJT.

1. **OJT—General.** The general on-the-job-training encompasses the office history and purpose and the flow of work through the office. All employees should be familiar with these two items, although the details of the flow of work need not be pursued at this stage. Employees should assist in this phase of the OJT.
2. **OJT—Specific.** Special on-the-job-training orienis each employee to the specific work station. It may be done by the principal (teacher), by the department manager, or by some of the workers in the departments. Some specific OJT will be done by group instruction, and more complex elements will have to be done on an individual basis.
3. **OJT—Setting Priorities.** One of the most critical phases of on-the-job training is teaching employees how to set priorities for completing their work. This is one of the unique values of a simulation. Each employee prepares a list of duties and indicates which duties might take priority over others at any given time. Only through the employees ability to establish priorities for various work will the simulation run smoothly.
4. **OJT—Self-Evaluation of Work.** Each employee is informed of the expected standard of performance for each job and is taught how to compare each item of work with such a standard.
5. **OJT—Handling Interruptions.** Part of the employee's on-the-job training includes procedures to follow for handling interruptions. Employees are taught how to take notes for telephone interruptions, visitors, and interruptions by other employees that distrub the normal pattern of work.
6. **OJT—Promotions.** Most simulations allow for movement from one job to another or movement from a lower paying position into a higher paying position. Such changes are typically called "promotions," but the reassignments are not always to higher level positions. Employees adhere to the policies and procedures for applying for and receiving such "promotions."
7. **OJT Management Seminars.** Frequent meetings with all or part of the employees to discuss businesswide or departmental problems are

conducted. The meetings simulate management training sessions of the business world. In other words, ideas are presented and accepted from the participants as employees rather than as students in a school situation. Employees are given an opportunity to make presentations and participate in other ways in these seminars. This is an excellent time for the whole office to get together and discuss common problems.

Adaptation. Nearly every simulation will need to be adapted to meet the local situation. Some examples of typical adaptations are:

1. Local business forms substituted for those provided as part of the simulation.
2. Explanations provided as to why procedures are followed if the materials in the simulation fail to do this.
3. Adjustments in quantity of work at various job stations may be necessary. Some jobs may be broken into two separate jobs whereas others can be combined.
4. Special duties can be added to expand or enrich certain jobs.
5. Instructional materials to help orient students to difficult jobs can be prepared. These materials can be in the form of a workbook with accompanying cassette.
6. Closing procedures for phasing out the simulation instead of just "dropping everything" when the simulation time ends can be prepared. An example of such closing procedures is discussed later in this section.

Daily Management. Day to day management, of course, is the heart of running a successful simulation. The proper atmosphere in this regard must be provided. The teacher becomes the office principal and, as such, takes on the responsibilities of planning, organizing, controlling, and evaluating the work of the office. As such, the principal should not "scurry around the office" but, as a general rule, should stay put in an "office." This is very hard for many teachers to do because in a typical office procedures laboratory the teacher is accustomed to moving from desk to desk in order to give individual assistance to each student. This pattern of activity is totally unrealistic in an office situation and should be avoided. But how does the principal communicate with the employees? Staff meetings, memos, telephone if available, appointments with employees in the principal's office, and minimum "at desk" supervision only for emergency situations are some of the methods.

The principal delegates authority to department heads who in turn are the individuals who have the most direct communication with the principal. This delegation includes authority to make decisions within the departments. The principal might want to design a reporting system in order to be aware of the status of day-to-day operations. Each department head is responsible for submitting a report periodically indicating the quantity and quality of work produced during a given period of time.

The principal will spend more time in "at desk" supervision with short simulations than with long ones. The principal might also want to train an assistant. It is not mandatory that this position rotate. A highly motivated employee who is interested in management operations of the business might be willing to act as the office assistant during much or all of the simulation.

Closing Procedures. For the employees to gain maximum benefit from participation in a simulation, organized closing procedures should be followed. Closing procedures developed and used successfully with the Lester Hill Simulation at Kempsville High School[1] are provided on following pages. Included are Procedures for Closing Activities, a Daily Record of Closing Activities, and Information for Preparing an Income Statement. Closing procedures such as the ones provided for the Lester Hill Simulation can readily be adapted to other simulations.

[1]The closing procedures and forms are printed here by the permission of Judy Allen who developed them.

PROCEDURES FOR CLOSING THE KEMPSVILLE BRANCH*

The following reports and activities will be completed in order to effect closing of the Kempsville Branch of the Lester Hill Corporation.

Reports will be submitted to the Executive Vice President as some of them will be forwarded to other departments for verification. Rough drafts of required letters will be submitted to the Executive Vice President for approval before they are typed for mailing.

Departmental Procedures and Requirements

1. Departmental reports must be typed in proper form.
2. Departmental employees are expected to share the work and each participate in preparing work for closing each department.
3. Submit reports to the Executive Vice President as soon as complete.
4. Each department will prepare a report of any work in progress.
5. Each department manager will prepare a report summarizing the work of each department employee, recommendations for increasing department efficiency, and suggestions for improving quality of work and quantity of work per employee.
6. One copy of each report will be requested, unless otherwise noted.

*These procedures were prepared by Judy Allen, Kempsville High School, Virginia Beach, Virginia, for use with the Lester Hill Simulation.

General Manager

1. Write individual personal letters to each employee of the Kempsville Branch to thank them for their efforts, etc.
2. Write letters to customers and suppliers expressing appreciation for the opportunity to work with them and for their prompt attention to your requests.
3. Prepare a report of all equipment used in the Kempsville Branch Office. Report on recommendations for other equipment/supplies needed.
4. Work with Executive Vice President to determine expenses for supplies, utilities, rent, entertainment, miscellaneous.
5. Prepare a report of supplies from the storeroom giving beginning and ending inventories and determining amount of supplies used.
6. Work with all employees finally to prepare a statement of profit and loss.

Accounting Department

1. Prepare a report showing absenteeism of each employee.
2. Prepare a summary report of each employee's payroll showing total earnings, total of each deduction, net pay.
3. Prepare a summary of accounts receivable.
4. Prepare a summary of accounts payable.
5. Prepare a statement of account for each customer.
6. Prepare a report showing weekly amount of checks received and checks written.
7. Prepare a summary and totals by classifications of discounts allowed to customers.
8. Prepare a summary and totals by classifications of discounts taken from creditors.
9. Determine the amount of cash on hand at the end of business operations.
10. Total, prove, and rule the cash receipts and cash payments journals.

Sales Department

1. Prepare a complete customer order summary for each customer.
2. Prepare a summary showing total sold each customer.
3. Prepare a report showing total sales for each item.
4. Prepare a report showing net sales to each customer.
5. Prepare a report showing total number of sales, total amount of sales, and amount of average of each sale.

Warehouse Department

1. Prepare a supplier order summary for each supplier.
2. Prepare a report showing beginning inventory, ending inventory, and amount purchased for each item in the catalog.
3. Prepare a report showing items backordered, customer for whom items were backordered, number of units backordered in each instance, and cost to customer.

Traffic Department

1. Prepare a report of total freight charges to each customer.
2. Prepare summary of freight paid by each customer.
3. Summary of total pounds delivered.
4. Summary of total miles of goods delivered.
5. Report showing: total charges for freight, total miles of delivered goods, total pounds delivered, average freight on each delivery, average weight of each delivery, and average distance of each delivery.

Tallidata (Outside World)

1. Prepare a report showing summary of accounts receivable.
2. Prepare a report showing summary of accounts payable.
3. Prepare a statement of account for each accounts receivable.
4. Prepare a summary and totals of discounts granted accounts receivable.
5. Prepare a summary and totals of discounts taken from accounts payable.
6. Prepare a report of net sales to each account receivable.

DAILY RECORD OF CLOSING ACTIVITIES FOR THE KEMPSVILLE BRANCH*

During the closing of your office, you are requested to keep a log of the things you do each day. Use this form to do this.

Be sure to indicate the fact if you work in a department other than your own.

An example of how you might state what you did: Worked in Sales Department—completed 5 customer order summaries.

MONDAY

_____

TUESDAY

_____

WEDNESDAY

_____

THURSDAY

_____

FRIDAY

_____

*This form was prepared by Judy Allen, Kempsville High School, Virginia Beach, VA, for use with the Lester Hill Simulation.

INFORMATION FOR PREPARING AN INCOME STATEMENT FOR THE KEMPSVILLE BRANCH*

You will prepare an income statement for your model office, Lester Hill Corporation, Kempsville Branch. Most of the necessary information will be found in your files. You must work together, and work efficiently, to accumulate the data you will need.

The General Manager will assign specific tasks when necessary.

Additional data needed:

1. Salary Expense
2. Supplies Expense
   a. $ .05 per form used
   b. staples—2 boxes at $.30 each
   c. paper clips—3 boxes at $.15 each
   d. paper
      (1) memo and letterhead—1/2 ream at $1.80 per ream
      (2) copy paper—1/2 ream at $1.80 per ream
      (3) carbon paper—1 package at $.30
3. Rent Expense—rate of $2.50 per day whether office was open or not.
4. Utilities Expense—rate of $.35 per day for each day office was open.
5. Miscellaneous Expense—rate of $.10 per day office was open.
6. Determine length of time office was in operation—beginning through closing.
7. Prepare the income statement for the length of fiscal period of operation. Combine the information you have assembled.
8. Turn in work you have compiled or information you have determined.

*These procedures were prepared by Judy Allen, Kempsville High School, Virginia Beach, Virginia, for use with the Lester Hill Simulation.

Enrichment Activities. Enumerated below are activities and procedures that have been used successfully to enrich model office simulations:

1. Allow decision-making to flow downward in the organization as far as possible. A unique feature of simulations is that they can be used to teach decision-making. Decision-making can only be taught by forcing employees in the simulation to make their own decisions insofar as possible. If the principal (teacher) insists upon perfection and assists the employees in every decision, the work will most likely flow very smoothly but, unfortunately, little decision-making skill will be developed. The principal must expect some mistakes to be made in order for students to develop decision-making skills.
2. An employee suggestion system with an appropriate reward structure can be used. For example, have a suggestion box available and give employees a special "bonus" for making suggestions that are adopted.
3. An office bulletin board is a good means of communication. Informative themes rather than decorative themes are most appropriate.
4. "Coffee breaks" are permitted in order to give the office a more realistic atmosphere.
5. Time-motion studies can be made.
6. Word processing equipment, if available, can be used by adapting the simulation.
7. Data processing equipment can also be used by adapting the simulation.
8. Employees can produce and distribute a weekly office newsletter. The newsletter can also serve as a public relations medium.
9. Public relations activities include:

   Placing a company sign outside model office or laboratory.

   Presenting a brief school assembly program or skit about the simulation.

   Having an open house for in-school and out-of-school visitors.

   Describing the simulation to beginning business classes and middle school career education classes.

   Sending an article describing the simulation to local news media.

Developing Model Office Simulations

The development of a model office simulation can provide insight into the actual operation of an office and can provide a means of meeting student job objectives.

Developing a model office simulation is an involved task that requires a strong commitment on the part of the writer or writers. Nevertheless, many teachers have written their own simulations and have found them to be highly successful. The order of the steps to be followed in developing and writing a model office simulation will vary depending upon the experience of the creators; the type and complexity of the simulation; and the personal, organizational, and writing abilities of the creators. The steps that follow suggest some of the key elements and time relationships that should be considered.

STEP 1 Review objectives of the business and office education program and job objectives of students. Update, if necessary. Recognize the need for and feasibility of creating a teacher-prepared simulation.

STEP 2 Assemble the writing team, if appropriate. Set general time schedule for completion.

STEP 3 Write the performance goals and objectives for the simulation. Review and refine. Test against overall program and individual student objectives.

STEP 4 Determine the length of time to be covered by the simulation. List alternate business organizations to be simulated.

STEP 5 Visit representative business firms of types identified in Step 4. Study office systems to be simulated. Make arrangements for possible future visits.

STEP 6 Select a business to simulate that best meets identified objectives of the simulation. Consider if or how the outside business world is to be simulated.

STEP 7 Visit businesses of the type to be simulated. Gather extensive and detailed information and sample forms for the office procedures and systems to be simulated.

STEP 8 Develop a preliminary design for the simulation. Include goals and objectives, type of business, departmental organization, work stations, forms, activities, outside business world, number of employees, job rotation ideas, evaluation ideas, and a general plan for getting the simulation started.

STEP 9 Set specific time goals for remaining steps. Assign jobs to team members, if appropriate.

STEP 10 Modify the steps in the work flow of the real businesses to meet requirements of a simulated office. For example: simplify forms to omit superfluous information, omit highly irregular exceptions to normal work flow, design work input to permit graduated difficulty, omit costly multiple forms where possible. Further modifications may be necessary to assure representative practice for objectives that relate to mathematics and verbal skills, human relations skills, and motor skills.

STEP 11 Obtain permission from the businesses to adapt or use the business forms and procedures. Make additional business visits to clarify points previously studied.

STEP 12 Develop a working design for the simulation. Redesign forms, if necessary. Further clarify departmental organization, work stations, activities, procedures, and specific responsibilities of each employee.

STEP 13 Prepare first draft of instructions for the simulation (sometimes called the employee's manual). Test for readability and clarity with students.

STEP 14 In cooperation with other teachers, do a "walk-through" of the simulation to see if there are gaps or bottlenecks in the flow of work. If feasible, operate the simulation with others to determine problems in work flow. Keep a record of all such problems (to be used when rewriting).

STEP 15 Settle on final design for the simulation. See Steps 8 and 12. Have students help select a name for the business.

STEP 16 Assemble all business forms and materials in final form. Prepare final draft of employee's manual.

STEP 17 Develop an employer's manual to include goals and objectives, start-up activities evaluation techniques, enrichment activities, rotation suggestions, keys if applicable, and ending activities. Also include equipment, materials, and supplies needed in the simulation.

STEP 18 Try the simulation with students. Keep a careful record of problems as they arise and suggested solutions by both students and teachers. Modify the simulation as necessary.

STEP 19 Consider using one or more of the public relations ideas provided on page 50 to announce the implementation of the simulation.

The development of a model office simulation can be a highly rewarding experience and will help any teacher gain an insight into the actual operation of a business office. The preceding guidelines are provided to help the teacher follow a logical sequence in the development of a simulation; they are not intended to serve as complete guides. Obviously, actual experience in the development of a simulation is the best way to learn the "ins" and "outs" of the process.

Evaluating Model Office Simulations

An essential part of the operation of a model office simulation is the proper use of evaluation procedures.

Before a simulation is implemented, the teacher must consider the objectives it will meet and plan how to assess whether or not these objectives have been met. Both the simulation process and the simulation participant, or product, must be evaluated in order to examine achievement of the objectives.

Two basic principles of evaluation to remember when assessing a simulation follow:

1. Evaluation is a process of assessing the extent to which the objectives of an endeavor have been accomplished, the identification of the strengths and weaknesses, and the design of a plan for improvement.
2. Evaluation is meaningful only when it is designed as a learning experience for the learner and is used in that manner.

Evaluation as stated in the first principle is a process; it is ongoing and not conducted only as a concluding activity. This concept is true for the instructional procedure (in this case the simulation) as well as for the learner. As part of the process, what is being done right, what is being done wrong, and what can be changed to improve the situation must be identified.

Process Evaluation

Before assessing what the learner has achieved, the learning situation must be assessed. In process evaluation, the over-all question to be considered is whether or not the educational purposes of the learning activity are being achieved. Obviously, this is a very broad question and the situation is usually such that some parts of the question can be answered "yes" and some "no."

On pages 53 and 54 is an instrument that can be used to examine various aspects of the question. Note that the first section of the instrument deals with purposes and objectives of the simulation for the employee and the second section with purposes of using the simulation by the principal (teacher). At the end of each section a space is provided for comments.

The questions on the instrument should be regarded only as a general guide to assessing the broad question of whether or not the educational purposes of the learning activity are being achieved. Additional questions should be added to both sections to fit the particular simulation being assessed. Also, the specific objectives to be met by the simulation can be added.

If the answer to a given question is no and the Modification Possible column has been checked, then the Comment space can be used to explain details of the modification. For example, assume that employees are not accepting responsibility for their own work (Question I, b). The modification suggested in the comment space might be that for each piece of work passed to another station with an error, $1 will be deducted from the employee's weekly paycheck. The assumption is made that the paycheck amount received by each employee is used as part of the learner evaluation process. This suggested modification, of course, should not be implemented solely at the discretion of the principal (teacher).

Debriefing sessions scheduled periodically throughout the simulation are an ideal time to discuss and decide on modifications appropriate for improvement of the simulation. Periodic use of the instrument discussed here or a similar one designed to assess the simulation process is recommended. How often it is used depends on the particular situation. For some simulations, weekly use may be appropriate, in others, bi-weekly. However, in order for replanning to take place and improvement adaptations to be implemented, not more than two weeks should elapse between actual use of such an instrument.

Prior to debriefing sessions, the principal (teacher) may find a process evaluation instrument completed by the employees useful. A suggested instrument appears on page 55. This instrument will help employees focus on possible trouble areas as well as provide a basis for discussion at the sessions. The instruments can be collected and trouble areas identified collectively or each employee may be asked to discuss answers to the instrument on an individual basis.

At the conclusion of the simulation, the process evaluation instruments should be completed by both the principal (teacher) and the employees. Information secured from this final evaluation can then be used as a reference when implementing future simulations. On the final evaluations, few of the questions should be answered negatively. If many are so answered, then the conclusion that the simulation activity had not met its overall purpose could be warranted. Major revisions of the simulation activity should then be considered.

Product Evaluation

Learner evaluation serves the purpose of helping the learner identify progress toward known goals. Again, as with process evaluation, the product evaluation procedure is an on-going process. It is not a terminal process conducted merely for the purpose of discriminating between individuals so that grades can be assigned. Evaluation enables the learner and the teacher to identify weaknesses and strengths of the learner and to assess these in relation to the terminal learning objectives of the activity for the learner.

For a model office simulation, various employee evaluation techniques can be used. They include:

1. Observation—The principal (teacher) as well as employees participating in the simulation can use check sheets or performance appraisal sheets for

SIMULATION PROCESS EVALUATION

I. Does the simulation serve the employee purposes and objectives it was intended to serve?

For example:	Yes	No	Modification Possible
a. Is the extent of student participation above that achieved in the normal classroom situation?	____	____	_____
b. Do students accept responsibility for their own work?	____	____	_____
c. Are simulation experiences comparable to those found in a real office?	____	____	_____
d. Are students exposed to a variety of interpersonal relationships typical of an office setting?	____	____	_____
e. Is there a range in the difficulty level of the work required at various stations?	____	____	_____
f. Are on-the-job performance standards required?	____	____	_____
g. Are students confronted with decision-making situations?	____	____	_____
h. Is the flow-of-work concept stressed?	____	____	_____
i. Is productivity as well as quality stressed in work performance?	____	____	_____
j. Are habits of work organization being developed?	____	____	_____
k. Other?	____	____	_____

Comments:

SIMULATION PROCESS EVALUATION (CONTINUED)

II. Does the simulation serve the teacher purposes it was intended to serve?

For Example:	Yes	No	Modification Possible
a. Could the same results be achieved by another instructional approach?	____	____	_____
b. Is the simulation atmosphere compatible with the instructional atmosphere considered appropriate by the teacher?	____	____	_____
c. Does the simulation provide for individualized learning experiences?	____	____	_____
d. Are the desired competencies being developed?	____	____	_____
e. Are the physical facilities adequate to conduct the simulation?	____	____	_____
f. Is the preparation time required of the teacher adequate?	____	____	_____
g. Is the teacher functioning as an office manager?	____	____	_____
h. Is the atmosphere that has been established that of a real office?	____	____	_____
i. Should the use of a different simulation be considered?	____	____	_____
j. Other?	____	____	_____

Comments:

SIMULATION PROCESS EVALUATION

(To be completed by the employees before debriefing sessions.)

		Yes	No
a.	Do you have a positive attitude toward the simulation?	____	____
b.	Are you fully using the time you have at your work station?	____	____
c.	Are your skills (typing, computation, communication) improving?	____	____
d.	Do you feel a sense of responsibility for your work?	____	____
e.	Are you learning to work with others?	____	____
f.	Can you follow the written directions for your work station?	____	____
g.	Can you follow oral directions given by others?	____	____
h.	Are you learning to give oral directions to others?	____	____
i.	Are the materials you use at your work station organized?	____	____
j.	Do you think the simulation activities will help you later on the job?	____	____
k.	Are you concerned about the quality of your work?	____	____
l.	Have you had trouble communicating with others in the simulation?	____	____
m.	Have you developed a feeling of loyalty to the simulation company?	____	____
n.	Are you able to assign priorities to the work you receive?	____	____
o.	Other?	____	____

periodic evaluation of the performance of a given employee. Refer to the Performance Check List on page 57 for an instrument suitable for use by employees and to the Employer Appraisal Form on pages 58 and 59 for one suitable for use by the principal (teacher).

2. Self-Observation—As the simulation progresses, each employee can complete check sheets designed for the purpose of evaluating self-performance. The Performance Check List on page 57 can be used for this purpose. This is the same instrument as recommended in 1 above for use by other employees.
3. Controls—Measures for items such as quantities of work produced, time required for completion, materials used, percentages of defective work acceptable, and time spent on non-productive activity can be established.
4. Attitude Scales—Employee behavior throughout the simulation can be assessed in respect to known desirable behaviors for the office situation.
5. Models (samples)—Samples of the work at each station will provide employees a means of determining if their work has been completed correctly.
6. Simulated Paychecks—A weekly paycheck to reflect employee performance can be used. For example, a base pay of $100 is appropriate with allowances for the amount to fluctuate according to the scale below:

Percent	Evaluation Factor
20	Quality of work—mailable or non mailable?
20	Quantity of Work—based on expected standard
10	Extra Supplies—have extra supplies been used?
10	Absenteeism—have absences been justified?
10	Tardiness—keep time cards and base on minutes tardy
15	Use of Time—are priorities established?
15	Organization—is work completed in an orderly fashion?

7. Samples of Work—Work completed, filing accuracy, and accuracy of computations can be examined.
8. Written Test—Items requiring a knowledge of simulation flow charts, organization charts, company history, sales policies, special vocabulary, duties of simulation positions, and task description are examples of items that can be included on written tests.

Regardless of the evaluation method(s) used, the outcomes are made known to the employee through an evaluation conference. The conference simulates an equivalent conference that a real office worker would encounter. The purpose of the conference is to provide the learner with feedback on what has been learned, performance effectiveness, and improvements needed. The more thorough the evaluation, obviously, the more meaningful the conference will be to the learner. Therefore, as many evaluation techniques as possible should be employed.

Employee evaluation followed by an evaluation conference is scheduled on a periodic basis throughout the simulation. The evaluation process is ongoing and is used for the purpose of improvement.

Grades are assigned on the basis of achievement in respect to office standards and in respect to goals established for individual employees. The employees should come to realize that the primary purpose for the use of evaluation procedures in a simulation is not for the assignment of grades. Grades are necessary and, certainly, a good evaluation procedure makes their determination much simpler. However, evaluation of employee progress in a simulation has the primary purpose of improvement.

PERFORMANCE CHECK LIST

Name _____

Position _____

Completed by _____ Date _____

Rating Scale

4 outstanding

3 satisfactory

2 needs improvement

1 not satisfactory

	Circle Rating
I. Quality of Work Consider factors such as neatness, accuracy, appropriateness of work.	1 2 3 4
II. Quantity of Work Consider how amount of work produced compares with that expected.	1 2 3 4
III. Uses Office Procedures Consider factors such as organization of work, following of directions, communication effectiveness, knowledge of job.	1 2 3 4
IV. Personal Qualities Consider factors such as ability to cooperate, attitude toward work environment, motivation, and need for supervision.	1 2 3 4
V. Dependability Consider factors such as attendance, punctuality, acceptance of responsibility.	1 2 3 4

Comments

EMPLOYER APPRAISAL FORM*

Employer (Firm or Organization) _____

Address _____

Supervisor _____

Name of Employee _____

Job Title _____

Circle the number that describes most adequately the performance of the employee when compared with other office workers of comparable education and experience.

1. Knowledge of business operation	Understands the total operation and how the job fits within the system 10 9 8 7	Makes no effort to learn the total operation and how the job fits within the system 6 5 4 3	Has no understanding of the total operation and how the job fits within the system 2 1 0
2. Knowledge of jobs within the office or unit	Knows and can do most of the jobs within the office or unit 10 9 8 7	Knows and can do a few of the jobs besides own 6 5 4 3	Knows only own job 2 1 0
3. Knowledge of pre[illegible] job	Good understanding of all details of the job 10 9 8 7	Average knowledge of all details of the job 6 5 4 3	Little knowledge of details of the job 2 1 0
4. Ability to work with other employees	Is liked by other workers 10 9 8 7	Has occasional difficulty with other workers 6 5 4 3	Is disliked by other workers 2 1 0
5. Ability to work with supervisors	Is liked by supervisors and executives 10 9 8 7	Has occasional difficulty with supervisors and executives 6 5 4 3	Is disliked by supervisors and executives 2 1 0
6. Advancement ability	Excellent possibility of advancement 10 9 8 7	Average possibility of advancement 6 5 4 3	Little possibility of advancement 2 1 0

*Adapted from *Model Vocational Office, A Simulated Training Program*, (Fairfax, Virginia, 22030: Fairfax County Public Schools, 1971), pp. 70-71.

7.	Organization of work	Well organized and systematic in work	Organized in some phases of work	Unorganized
		10 9 8 7	6 5 4 3	2 1 0
8.	Poise	At ease and handles all situations well	No unusual lack of poise	Ill at ease
		10 9 8 7	6 5 4 3	2 1 0
9.	Adaptability	Adjusts well and quickly to change	Has some difficulty adjusting to change	Fights change and has great difficulty making adjustments
		10 9 8 7	6 5 4 3	2 1 0
10.	Initiative	Institutes improved procedures	Uses some degree of initiative	Lacks initiative
		10 9 8 7	6 5 4 3	2 1 0
11.	Industriousness	Is conscientious and has large volume of work	Does average amount of work	Wastes time and output is unsatisfactory
		10 9 8 7	6 5 4 3	2 1 0
12.	Ability to perform	Has good skills in all areas necessary to perform job	Lacks skills in some areas	Is poor in many skills
		10 9 8 7	6 5 4 3	2 1 0
13.	Accuracy of work	Seldom makes errors	Makes average number of errors	Makes errors frequently
		10 9 8 7	6 5 4 3	2 1 0
14.	Attendance and punctuality	Always there and on time	Occasionally late or absent	Frequently late or absent
		10 9 8 7	6 5 4 3	2 1 0

15. Please comment on areas of improvement that high school training could provide that would have been of benefit to this employee.

The Model Office Facility

An adaptable facility that can be used for various model office simulations is most desirable.

The model office, as its name implies, is as similar to a modern office as possible. One of the main considerations in its design is flexibility since it will most likely be used for a variety of simulations by students from different occupational preparation programs. Listed are some basic guides to follow in designing a model office.

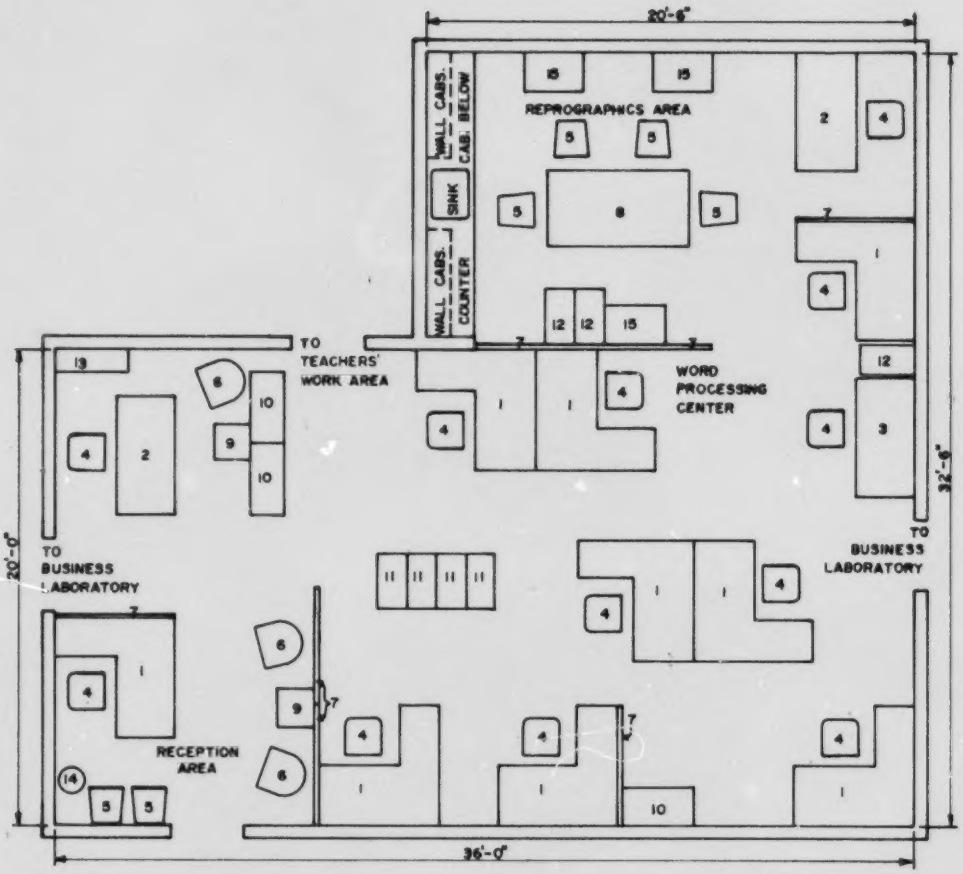
1. The model office facility should be adjacent to and visible from the occupational preparation program laboratories it serves.
2. It simulates a modern well-equipped office with appropriate furniture and equipment for each work station.
3. The facility must be constructed to meet safety standards.
4. It should have moveable partitions and a flexible wiring arrangement so that work stations can be moved about to accommodate the workflow of a variety of simulations.
5. Open space planning with furniture compatible with the office landscaping concept will prove most usable.
6. Generally, a model office for ten students will require a space of approximately 25 feet by 30 feet or 750 square feet.
7. Since telephone communications are an integral part of office simulations, a telephone or telephone-type intercom system should be provided between work stations within the model office and the occupational preparation program laboratories it serves.
8. Adequate space should be provided for the establishment of a word processing center (an automated information handling system) or other new office technology systems within the model office.
9. Adequate file and storage space is essential.
10. Carpeting is desirable because of its ability to absorb noise as well as for its aesthetic qualities.
11. The reprographics center that is a part of every business and office education department can beneficially be placed adjacent to or contained within the model office. The reprographics center includes duplicating, collating, and related equipment.
12. The facility should be flexibly designed so that the teacher can dictate what is taught in it, not so that the facility dictates what can be taught.

The layouts for the model offices on the following pages are provided only as suggested examples. The layouts utilize the landscape office plan which is characterized by its open arrangement. Movable screens, furniture, and cabinets are used in this type layout to provide movement, sound, and privacy control. The attractiveness of the landscaped office depends on colorful decor, the use of carpeting, carefully placed planters, and tasteful wall decorations.

The basic functions that a landscaped office serves include:

1. The provision of a pleasant working enviornment for employees.
2. An openness that facilitates communication.
3. An arrangement that enhances working relationships between people and between departments.
4. A flexibility that allows for change to accommodate a variety of office needs.

Designated areas in the suggested layouts include the reception area, the word processing center, and the reprographics area. Other areas in these layouts can be designated for office activities such as accounting, sales records, and management.



SUGGESTED LAYOUT FOR
MODEL OFFICE WITH REPROGRAPHICS AREA

12 STATIONS - SERVES 2 BUSINESS LABORATORIES

KEY

1 SECRETARIAL DESK, 30" x 60" with L 20" x 30"

2 EXECUTIVE DESK, 30" x 60"

3 WORD PROCESSING STATION, 30" x 60"

4 UPHOLSTERED CHAIR

5 SIDE CHAIR

6 ARM CHAIR

7 MOVABLE PARTITION, 60"

8 WORK TABLE, 36" x 72"

9 SQUARE TABLE, 18" x 18"

10 STORAGE CABINET, 18" x 36"

11 FILE CABINET, 15" x 28½"

12 ROLLING FILE, 2-DRAWER, 15" x 28½"

13 BOOKCASE, 12" x 36"

14 COAT TREE

15 MACHINE STAND, 30" x 20"

SUGGESTED LAYOUT FOR
MODEL OFFICE WITH REPROGRAPHICS AREA

20 STATIONS - SERVES 4 BUSINESS LABORATORIES

KEY

1 SECRETARIAL DESK, 30" x 60" with L 20" x 30"

2 EXECUTIVE DESK, 30" x 60"

3 WORD PROCESSING STATION, 30" x 60"

4 UPHOLSTERED CHAIR

5 SIDE CHAIR

6 ARM CHAIR

7 MOVABLE PARTITION, 60"

8 WORK TABLE, 36" x 72"

9 SQUARE TABLE, 18" x 18"

10 STORAGE CABINET, 18" x 36"

11 FILE CABINET, 15" x 28½"

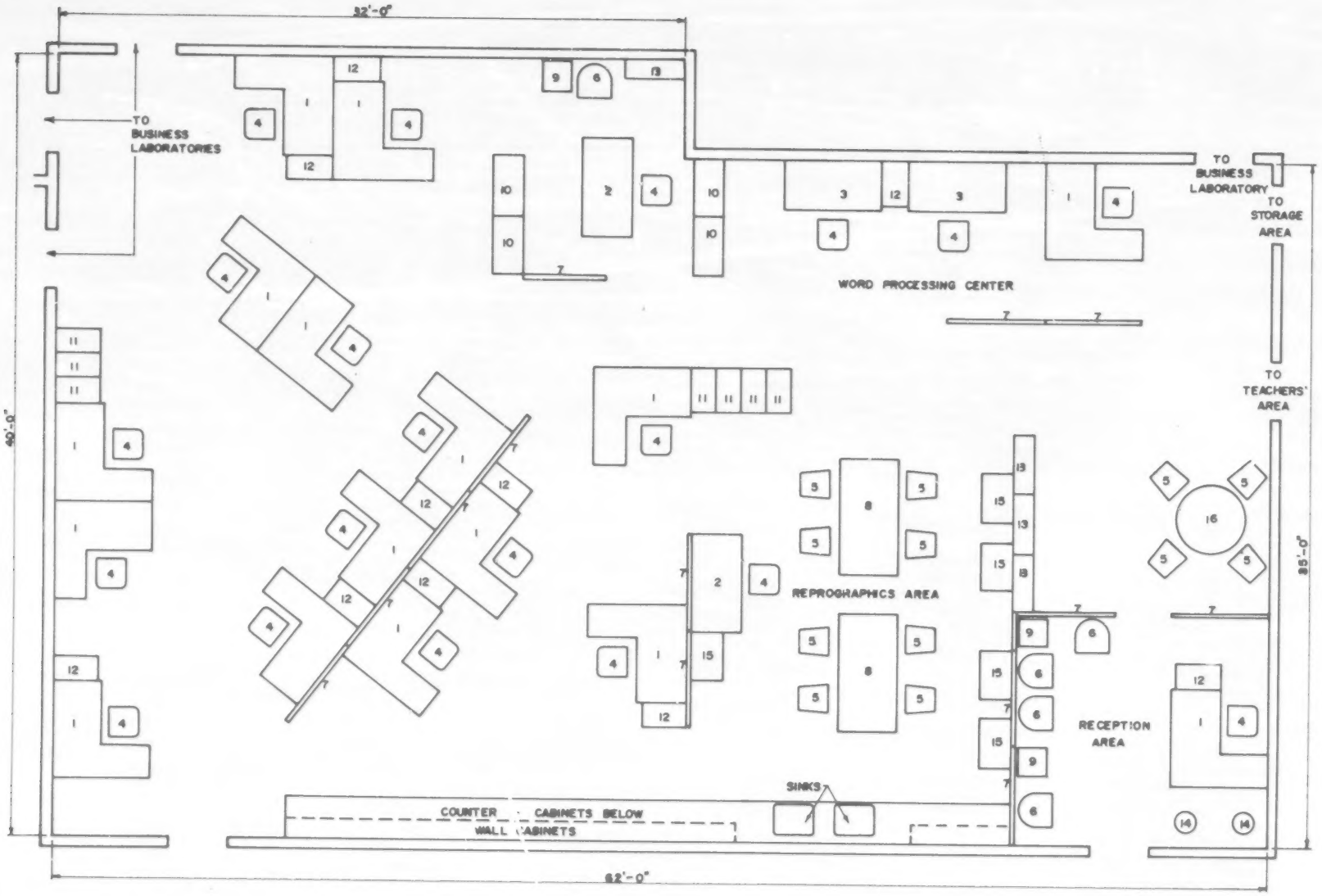
12 ROLLING FILE, 2-DRAWER, 15" x 28½"

13 BOOKCASE, 12" x 36"

14 COAT TREE

15 MACHINE STAND, 30" x 20"

16 CONFERENCE TABLE, 42" Diameter


92'-0"
TO BUSINESS LABORATORIES
TO BUSINESS LABORATORY
TO STORAGE AREA
WORD PROCESSING CENTER
TO TEACHERS' AREA
40'-0"
85'-0"
REPROGRAPHICS AREA
RECEPTION AREA
SINKS
COUNTER
CABINETS BELOW
WALL CABINETS
92'-0"

A Selected Bibliography of Articles Describing Unpublished Model Office Simulations

Atwood, I W. "A Model Office the Easy Way," *Business Education Forum*, 27:60-62, October, 1972.

Describes the implementation and operation of a student secretarial service simulation.

Barger, Virginia "Simulation Provides Better Preparation for Office Employment," *Business Education Forum*, 24: 14-15, February, 1970.

Details a merchandising simulation with input transactions of mail catalog orders generated by students.

Barger, Virginia "Office Simulation, An Effective Technique," *The Balance Sheet*, 51: 259-61, February, 1970.

Another article about the simulation described above.

Clippenger, Dorinda "A Simulated Office Experience for Typewriting II," *Journal of Business Education*, 47: 155-156, January, 1972.

Easy to manage and develop 12-day simulation organized on the basis of two-student, interacting companies.

Davis, Rose Anne "Sole Stimulates Students," *Business Education Forum*, 25: 43-45, May, 1971.

Describes a snack service business simulation used primarily with bookkeeping students.

Forte, John "A Model Office on a Shoestring," *The Balance Sheet*, 51: 115-117, November, 1969.

Easy to manage and develop two-week simulation organized on the basis of two-student, interacting companies.

Fuller, Robert W. "Student Involvement Achieved Through Creative Simulation," *Business Education Forum*, 24: 18-20, February, 1970.

Describes a simulated merchandising business organized into three departments—sales, office services, and accounting.

Jalowsky, Toby D. "The Model Office in an MDT Skill Center," *Business Education Forum*, 26: 63-64, October, 1971.

Describes a simulation of a jobbing sales office for a toy company that sells wholesale to retail dealers.

Karsner, Jean C. "Successful Simulation Teaches Office Practice," *Business Education Forum*, 23: 23-25, April, 1969.

Provides details for the operation of an office supplies seller simulation. The company is organized around four departments—sales, accounting, stenographic, and purchasing.

Klemin, Wayne "Junk Mail: Added Dimension to Teaching Records Management," *Business Education Forum*, 32: 15-17, 1977.

Explains procedures for organizing and using a "junk mail" filing simulation. Students learn to file real materials while gaining an insight into the need for a sound records management system.

Mosich, Davis "Flair: A simulation based on a real buying office," *Journal of Business Education*, 49: 318-20, May, 1974.

Describes the development and use of a simulation based on the activities of a real fashion buying office. The simulation operates through three departments—buying, office services, and accounting.

Russell, Donald "Simulated Approach to Recordkeeping," *The Balance Sheet*, 52: 256-258, 286, March, 1971.

Details a payroll simulation designed for use with recordkeeping classes.

Smith, Genevieve "The Mini-Company, A New Approach to Office Education," *Journal of Business Education*, 49: 54-55, November, 1973.

Describes the implementation and operation of a student secretarial service simulation.

Simmons, Barbara "A Unique Learning Experience for Secretarial Students," *Business Education World*, 55: 30, September-October, 1974.

Outlines the operation of a Placement Office/Model Office at a community college. The office operates as a free service to all students and "live" information is processed.

Sparks, Mavis C. and Hammond, Betty "Crimson Company Provides the Finishing Touch," *American Vocational Journal*, 45: 28-29, 32, September, 1970.

Describes the operation of a mechandising business with input transactions generated by the students. The company is organized around four departments—sales and purchasing, accounting, stenographic services, and duplicating services.

Thomas, E. G. "Developing Office Simulations, *Journal of Business Education*, 50: 274-76, April 1975.

Explains the development and operation of a law office simulation as part of a business teacher preparation program.

Descriptions of Selected Model Office Simulations

A LA CARTE ENTERPRISES

Type of Business

The A La Carte Enterprises simulation is based on the operation of one or more branch offices of the wholesale grocery firm. It is an advanced office simulation designed for use with secretarial or office education students.

Suggested Positions

Consolidated Business Services Representative (outside world)
General Manager
Administrative Assistant
Order Analyst
Warehouse Coordinator
Accounting Clerk

Each A La Carte branch office must have the above six positions. For 7 to 15 students positions as follows may be added.

Consolidated Business Services Representative— (2)
Order Analyst—(2)
Accounting Clerk—(2)
Secretary—(1)
Warehouse Coodinator—(1)
Administratie Assistant to Consolidated Business Services—(1)

For more than 15 students, an additional branch office should be opened.

Data or Transaction Input

Input for the simulation comes from 160 written items consisting of orders, applications for credit, requests for price quotations, advertising flyers, newspaper clippings, etc. Some of the items are used to start the simulation; the rest are used to continue the work flow. Two copies of each item are provided—one to be forwarded to the A La Carte office; the other to serve as a partial "key" for the Consolidated Business Services representative(s). These representatives serve as the customers, suppliers, correspondents, and callers for A La Carte. Functioning as the "outside world," travel agency, and bank, Consolidated Business Services processes the business papers and other communications that flow into and out of each A La Carte office. In addition, telephone input of 150 calls contained on cassettes is provided.

Equipment Needed

A business laboratory equipped for an occupational preparation offering such as clerk-typist is needed. A model office facility with a telephone system between the model office and the laboratory is highly desirable.

Forms

Various forms as required for the conduct of branch office activities are used. Forms needed are provided as part of the simulation.

Time

The simulation is designed to run from 45 to 90 hours.

Source

Gregg Division
McGraw-Hill Book Company
330 West 42nd Street
New York, New York 10036

Author

Mary Joyce Ruey

AMERICAN PAPER EXPORTERS ASSOCIATION (APEX)

Type of Business

APEX is a service organization that promotes the interests of the paper industry. It obtains revenue from roughly 250 dues-paying members who produce various grades of paper. Services rendered by APEX weekly consist of the APEX Newsletter, the Consumption-to-Capacity Report, and the Labor and Operating Report. On a monthly basis, APEX prepares the Woodpulp Import Survey and twice a year it produces the Foreign Market Survey. Information for the newsletter and reports are compiled by APEX from 50 selected "reporting" members.

Suggested Positions

Office Services Division
- Receptionist
- Billing Clerk
- Payroll Clerk
- Mail Clerk
- Machine Operator
- File CLerk

Statistical Division
- Regional Clerk—(5)
- Typist
- Machine Operator
- File Clerk

Information Service Division
- Copy Clerk
- Design Clerk
- File Clerk
- Typist—(2)
- Machine Operator

For smaller groups, the Information Services Division can be eliminated. For larger groups, responsibilities can be divided. As students gain proficiency, they can be advanced to classifications such as specialists and clerk-typists. However, the responsibilities of the positions remain essentially the same.

Data or Transaction Input

The simulation activities are divided into 36 modules and a mail input envelope is provided for each module. One additional input envelope is provided with "dated mail" that must be handled within a specified time. Statistical reports from the 50 reporting member mills can be prepared by the students during the orientation period or can be prepared as needed by the students.

Equipment Needed

A business laboratory equipped for an occupational preparation offering such as clerk-typist is needed. A model office facility with a telephone system between the model office and the laboratory is highly desirable.

Forms

A Masters Book containing copies of the forms needed for the operation of the simulation is provided. A supply of the forms must be duplicated before the simulation can begin operation. Additional forms are then duplicated as an on-going part of the simulation.

Time

The simulation is designed for a class of twenty students meeting for three consecutive periods a day, five days a week for a full year. Both the time element and the number of students required is flexible. However, at least one semester of a double-period class would be needed.

Source

3M Education Press
3M Center, Building 220-10 W
St. Paul, Minnesota 55101

Authors

William Jennings
Otto Santos, Jr.
Lucille E. Wright
Gloria Erwin

HOUSTON HOUSE

Type of Business

Houston House is a wholesale merchandising business that also operates a small retail store called the Ride-M Cycle Shop. Houston House sells bicycles, cameras, camping equipment, luggage, stereo equipment, exercise equipment, television sets, typewriters, radios, tape recorders, etc. Supplementing the operation of Houston House is a service company, Business and Banking Services, that acts as a clearing house for checks and as a recordkeeper for customers and suppliers of Houston House. Houston House is a comprehensive recordkeeping program embracing the dual concepts of individualized job training and model office simulation.

Suggested Positions

Houston House
- Accounts Payable Clerk
- Accounts Receivable Clerk
- Cash Payments Clerk
- Cash Receipts Clerk
- Payroll Clerk
- Sales Order Clerk
- Inventory Clerk
- Purchase Order Clerk
- Retail Store Cashier (optional)

Business and Banking Service
- Customer's Representative
- Supplier's Representative
- Banking Representative

Houston House is designed for 11 to 30 students and requires only basic addition, subtraction, and multiplication skills plus a sixth grade reading level. Because there are 11 jobs in the simulation, a minimum of 11 students is required. However, more than 30 students can participate in that those in excess of 30 can assume supervisory positions.

Data or Transaction Input

An input book that contains completed forms such as incoming orders, bills, etc. is provided. These forms are fed into Houston House directly or via the Business

and Banking Service to get the simulation started. Once in operation, additional input is generated by the Business and Banking Service employees.

Equipment Needed

Any business and office education classroom can be used and the *Employer's Handbook* contains suggested layouts for rooms with both movable and nonmovable desks. Availability of a business laboratory with computational equipment would make the simulation more realistic.

Forms

All blank forms needed to run the simulation are included in the Houston House office supplies set. In addition, a central file for storage of blank forms needed on a day-to-day basis and for filing the business papers of Houston House is included with the office supplies set.

Time

Houston House is designed as a complete recordkeeping program and it can run for a full year (36 weeks) or for one semester (18 weeks). The *Employer's Handbook* shows in detail how the program can be divided according to the length of the offering.

Source

Gregg Division
McGraw-Hill Book Company
330 West 42nd Street
New York, New York 10036

Authors

L. Joseph Cotton
Judy Lima
Donald B. Koeppen

LESTER HILL CORPORATION

Type of Business

Lester Hill Corporation is a national distributor of hotel and motel supplies and equipment. The simulation is centered around the operation of one or more branch offices depending on the number of students involved. The teacher serves as the corporation's excutive vice president in charge of branch office operations and the students' work as the office employees of a branch office. Emphasis is placed on the three office systems central to any office operation: Sales, Purchasing, and Cash Control.

Suggested Positions

General Manager
Sales Manager
Order Clerk
Warehouse Manager
Stock Control Clerk
Traffic Manager
Traffic Clerk
Accounting Manager
Accounts Receivable Clerk
Accounts Payable Clerk
Billing Clerk
Secretary/Receptionist
Mail and File Clerk
Cashier
Tallidata Representative (Outside World)

Each branch office, regardless of size, has four main departments—sales, warehouse, traffic, and accounting, and can operate with anywhere from 6 to 30 employees. Organization charts are provided for three different size offices along with suggestions for combining and expanding positions according to the number of students in a given class. Whether to operate one large, two medium size, or three small branch offices is optional and depends to a large extent on student ability to carry out the operations of the branch office.

Data or Transaction Input

Input for the simulation comes from 240 prepared orders provided with the simulation supply room. Each day a batch of the orders is given by the teacher to the Tallidata representative (outside world) to be forwarded to the branch office. The orders are grouped according to complexity and generally a "mix" of orders should be used daily.

Equipment Needed

A business laboratory equipped for an occupational preparation offering such as clerk-typist is needed. A model office facility with a telephone system between the model office and the laboratory is highly desirable.

Forms

Various forms as required for the conduct of branch office activities are used. They are included as part of the simulation supply room.

Time

The simulation is designed to run for 45 to 90 hours. However, actual duration of the simulation depends to a great extent on the number of students involved and on the abilities of the students. Also, a number of optional activities can be included to expand the length of simulation.

Source

Gregg Division
McGraw-Hill Book Company
330 West 42nd Street
New York, N. Y. 10036

Author

Myron J. Krawitz

MIDWEST PACKAGING MACHINES, INC.

Type of Business

Midwest Packaging Machines, Inc. is a manufacturing firm which custom builds packaging machines for overwrapping consumer goods. The products are the packaging machines and spare parts for packaging machines, which may either be custom built or standard.

Suggested Positions

Office Manager
Secretary-receptionist
Clerk-typist
Bookkeeper

For additional students, another office must be established.

Data or Transaction Input

Work input data and task sheets are included as part of the simulation. The teacher introduces the input materials as desired.

Equipment Needed

A business laboratory equipped for an occupational preparation program such as clerk-typist is needed. A model office facility with a telephone system between the model office and the laboratory is highly desirable.

Forms

All forms required are provided as part of the simulation.

Time

The simulation contains work input and tasks for twenty hours of operation.

Source

Dr. Robert Poland, Project Director
Vocational Office Block Project
115 Erickson Hall
Michigan State University
East Lansing, MI 48824

Author

Nancy Simbulan

HELP, INCORPORATED

Type of Business

Help, Incorporated is a convention bureau service organization. Service to the community; aiding in the planning of conventions, meetings, and so forth; and promoting the local area are the main functions of the organization. The simulation can be adapted to any sales or service organization and was designed for use by senior stenographic students.

Suggested Positions

Executive Secretary
Office Manager
Receptionist—Resource Director
Special Services Director
Sales Manager
Personnel Director
Office Services Director
Training Director
Stenographic Pool (8-10)

The organization structure can be expanded or made smaller by dividing or combining positions. However, an efficient balance must be maintained between management and the stenographic pool. The simulation can be expanded from a minimum of 15 students to a miximum of 25.

Data or Transaction Input

Input is in the form of letters and memos mailed by organization members or those interested in the services of Help, Inc. Each student is given the name of one client or member. The student then prepares several inquiries from that customer. The instructor files and uses these input letters or memos at appropriate times. The instructor prepares incoming invoices and checks.

Equipment Needed

A business laboratory equipped for the stenographic occupational preparation offering is needed. A model office facility with a telephone system between the model office and the laboratory is highly desirable.

Forms

Approximately 35 different forms are used in the simulation. Master copies of the forms are provided in the manual and the instructor must arrange to have needed copies of the forms duplicated.

Time

The total simulation activity is intended for use in the entire senior year of a 3-hour block, however, the amount of time used can be restricted according to that available. The simulation could most likely be successfully run for a half year in a 2-hour block.

Source

Contained in *Stenographic and Related Occupations*, Bulletin 9, 1973 available from:

Instructional Materials Laboratory
The Ohio State University
1885 Neil Avenue
Columbus, Ohio 43210

(The bulletin can be obtained for minimal cost by contacting the above address.)

MOE, INC.

Type of Business

MOE, Inc. is a mortgage loan company that provides money for the purchase of homes and property. The company obtains from investors, usually large insurance or investment companies, the money it in turn loans to borrowers. A profit is made by "buying" money from the investors at a lower rate of interest than it is "sold" to borrowers.

Suggested Positions

Vice President
Executive Secretary
Administrative Assistant
Cashier
Posting and Tax Clerk
Receptionist
Insurance Clerk

The Administrative Assistant and Receptionist duties can be combined. For more than seven students establish additional complete offices.

Data or Transaction Input

The instructor provides task sheets with accompanying needed forms and input business papers such as checks, coupons, invoices, tax statements, and letters. In addition, the Administrative Assistant represents the "outside world" by acting as a telephoning customer, a visiting customer, or the bank when the need arises.

Equipment Needed

A business laboratory equipped for an occupational preparation offering such as clerk-typist is needed. A model office facility with a telephone system between the model office and the laboratory is highly desirable.

Forms

Approximately 50 different forms are used in the simulation. Master copies of the forms are provided in the manual and the instructor must arrange to have needed copies of the forms duplicated.

Time

The total simulation activity is designed for 9 weeks, 2 hours per day. This includes 2 weeks for orientation, pre-problem briefing, and positional instruction; 2 weeks for simulation warmup; 4 weeks for full scale simulation, and 1 week for debriefing.

Source

MOE Simulation Guide available from the
Utah State Board of Education
1400 University Club Building
136 East South Temple
Salt Lake City, Utah 84111

(A teacher's manual can be obtained for minimal cost by contacting the above address)

OFFICE POWER, INC.

Type of Business

Office Power, Inc. is a service organization that provides all types of office services for customers as diverse as a governmental agency, an insurance agent, a legal partnership, a landscaping-gift shop, and a retailer. Live work from individuals within the school or community can also serve as customer input.

Suggested Positions

Accounting Clerk
Liaison Officer I (customer/creditor)
Liaison Officer II (banker)
Mail/File Clerk
Payroll Clerk
Receptionist/Librarian
Secretary
Supply Clerk I
Supply Clerk II
Training Clerk
Typist/Billing Clerk

If the number of students is fewer, positions may be combined or even omitted; if the number of students is larger, positions may be divided or other positions may be added. The simulation can accommodate from six to thirty-six students.

Data or Transaction Input

Complete job order input from the customers is provided with the simulation and may be recycled if desired.

Equipment Needed

A business laboratory equipped for an occupational preparation offering such as clerk-typist is needed. A model office facility with a telephone system between the model office and the laboratory is highly desirable.

Forms

All forms needed are supplied with the simulation. They are ready to use and actual size. Replacement forms are available.

Time

The simulation time is highly flexible. The simulation may be used daily or two or three times a week for 12 to 36 weeks. A two-hour block each day is suggested.

Source

Office Power, Inc.
1955 Montreal Avenue
Eugene, Oregon 97401

(Information about the simulation and sample materials may be obtained for minimal cost by contacting the above address.)

OFFICE SUPPLY AND EQUIPMENT COMPANY

Type of Business

Office Supply and Equipment Company is a model office simulation designed for post-secondary students. The company is a wholesaler for a line of office furnituire, adding machines, typewriters, and general office supplies. All the customers are actual businesses or schools.

Suggested Positions

Office Manager
Assistant Office Manager
Administrative Secretary
Secretary/Receptionist
Sales (3)
Accounting (4)
Customer Ordering and Manufacturing (4)
Personnel/Payroll (2)
Shipping/Receiving (3)
Word Processing Center (2)
Purchasing (1)

The above number of positions allows for 23 employees. If the number of students is smaller positions can be combined to as few as 10 employees.

Data or Transaction Input

Students assigned to Customer Ordering and Manufacturing (COM) create input for the Office Supply and Equipment Company. COM acts as purchasing agent and places orders for customers in 5 states: Minnesota, Iowa, Wisconsin, North Dakota, and South Dakota. The orders are placed via telephone, in the form of letters, and from sales representatives.

Equipment Needed

A business laboratory equipped for an occupational preparation offering such as clerk-typist is needed. A model office facility with a telephone system between the model office and the laboraory is highly desirable.

Forms

A Variety of forms are used in the simulation. Master copies of the forms are provided in the manual and the instructor must arrange to have needed copies of the forms duplicated.

Time

The simulation is designed to provide great flexibility so far as length is concerned. It is best used for a 12-week course (at minimum) and can be easily extended to meet other needs—even a year-round office. It is organized for a 2-hour per day schedule but can be used on a full 8-hour day basis.

Source

Department of Education
Capitol Square
550 Cedar Street
St. Paul, Minnesota 55101

(The simulation can be borrowed from:
Minnesota Instructional Materials Center
3554 Bear Avenue
White Bear Lake, Minnesota 55110)

THE PATRIOT COMPANY

Type of Business

The Patriot Company is an office supply company that sells wholesale and retail to stores and companies. The brand name of the equipment is PATCO and it is manufactured at the main company headquarters in California. The Patriot Company also operates an Outlet Store where cash sales are made.

Suggested Positions

General Manager
Executive Secretary
Office Manager
Senior Stenographer
Switchboard Operator
Receptionist
File Clerk
Accountant
Accounts Receivable Clerk
Accounts Payable Clerk
Payroll Clerk
Head of Outer Store
Sales Manager
Assistant Manager
Inventory Clerk
Clerk-Typist
Shipping Clerk
Advertising Secretary
Simulators (3)

No suggestions are provided in the manual for combining or expanding positions.

Data or Transaction Input

Instructor and students create input documents such as orders, statements from vendors, expense reports, and checks from customers during the presimulation period. The simulators work from a script or spontaneously to create interaction situations with the "outside world" as the simulation progresses.

Equipment Needed

A business laboratory equipped for an occupational preparation offering such as clerk-typist is needed. A model office facility with a telephone system between the model office and the laboratory is highly desirable.

Forms

Approximately 35 different forms are used in the simulation. Master copies of the forms are provided in the manual and the instructor must arrange to have needed copies of the forms duplicated.

Time

Actual simulation time is designated as 12 weeks, 2 hours per day. Additional time should be allowed for orientation and debriefing.

Source

The Patriot Company
A Simulated Office
Parkview High School
Little Rock, Arkansas 72201

Author

Phyllis W. Smith

PROJECT IN/VEST

Type of Business

For Project IN/VEST, students simulate in two areas—in the home office of the automobile insurance company and as two student agencies.

The agencies solicit prospective customers; write appointment letters; interview applicants; rate and process applications for policies; handle renewals, endorsements, invoices, and credit memos; handle cash receipts and bank deposits; endorse and write checks; reconcile bank statements; process claims; and receive a simulated 15 percent commission on sales.

Within the home company office, students rotate to seven positions. They write policies from applications supplied by the agencies, invoice the agencies, prepare payroll, process agency commissions, and order supplies as needed.

Students rotate from agency to home office and also to the position of banker. So the agencies will be operating at all times, only one student is rotated to a central office position or to the position of banker from an agency at any given time.

Suggested Positions

Company Office
- Mail and Supply Desk
- Policywriting Desk
- Underwriting Desk
- Accounting Desk
- Office Manager
- Receptionist
- Adjuster

Banker

Agencies—Each two students form an agency that must borrow money to begin operation and earns commissions by selling policies.

The simulation can operate successfully with 16 to 30 students.

Data or Transaction Input

The prospective customers provide the data input for the simulation. Any individual willing to participate as a customer on a simulated basis may do so. For example, driver education students, teachers, and parents can be contacted. The customers are provided with simulated checks to pay for policies purchased.

Equipment Needed

A business laboratory equipped for an occupational preparation offering such as clerk-typist is needed. A model office facility with a telephone system between the model office and the laboratory is highly desirable.

Forms

Forms are available from the Noonan Publishing Company, P.O. Box 1779, Santa Monica, CA 90406. Assistance with obtaining forms may be received from local insurance agencies or local insurance agents' associations.

Time

The total simulation activity can be completed in 18 weeks, 2 hours per day. The amount of time can be expanded as the instructor deems desirable.

Source

Mr. Matthew A. Cantoni, Jr.
National Association of Insurance Agents, Inc.
85 John Street
New York, New York 10038

(Examination materials can be obained by writing the above address.)

RIGHT-ON RECORDS, INC.

Type of Business

Right-On Records, Inc., is a wholesale company which sells to retail outlets. This simulation is designed to provide a realistic situation where students will encounter experiences much like those in a typical business office. The simulation is used to best advantage after students have acquired the necessary skills and business principles required for its operation.

Suggested Positions

Office Manager (1) (Teacher fills this position)
Sales Supervisor (1)
Purchasing Clerk (1)
Accountant (1)
Administrative Secretary (1)
*Billing Clerk (3)
Inventory Clerk (1)
*Order Pricing Clerk (1)
*Extension Clerk (2)

Junior Purchasing Clerk (1)
Accounts Receivable Clerk (1)
Accounts Payable Clerk (1)
*Stenographer (2)
*General Clerk (2)

*These positions may be decreased or increased according to the size of the class. The project was originally designed for 24 students, but may accommodate 12-26 students.

In addition to the positions in the model office, 3-7 simulator positions are assigned to the operation of outside companies.

Data or Transaction Input

All input to the model office is live from the simulators representing outside companies (customers and suppliers). The simulators work from a transaction list. In a sense, each simulator is a mini-company. The simulation participants must keep accurate records, solve problems, and make decisions on their own.

Equipment Needed

A business laboratory equipped for an occupational preparation offering such as clerk-typist is needed. A model office facility with a telephone system between the model office and the laboratory is highly desirable.

Forms

Most of the forms needed are included in the packet. Students are required to design a few forms. The forms which are given can be reproduced on instant stencils or spirit masters on a thermofax machine or by any other copying method.

Time

The total simulation activity was designed for a four-week period meeting two periods a day. The simulation can be adapted to one-hour periods with the class doing one simulated day in two class periods. By developing additional days of transactions, the simulation can be extended beyond four weeks, or it can be shortened by deleting the last 5 or 10 days.

Source

Beta Chi Chapter, Delta Pi Epsilon
Dr. Robert J. Motley, Professor
Business Education and Administrative Office Management
Western Illinois University
Macomb, IL 61455

(A copy of the simulation can be obtained at minima cost by contacting the above address)

SERENDIPITY, INC.

Type of Business

Serendipity, Inc. is a New York cosmetic manufacturer that sells cosmetics for young people to retail or wholesale outlets. Students participate in the simulation as both employees of the company and as customers.

Suggested Positions

Receptionist
Office Manager
Sales Manager
Shipping Clerk
Accountant
Simulator

Six basic positions as listed above must be filled. Three additional positions may be added.

Accounting Clerk
Sales Clerk
Secretary

The six to nine students named to the above positions serve as the employees of Serendipity, Inc. for a period of 30 to 50 hours. They then return to the class to continue with their regualr learning activities and to serve as customers. Students undertaking regular learning activities and serving as customers then become employees of Serendipity, Inc. Each student while employed by Serendipity has the opportunity to work in 3 to 5 different positions.

Data or Transaction Input

Students not named to simulation positions serve as customers. They spend a few minutes at the beginning of each class period to send orders to Serendipity, Inc., to see that orders have been properly filled, and to write checks in payment for cosmetics received.

Equipment Needed

A business laboratory equipped for an occupational preparation offering such as clerk-typist is needed. A model office facility with a telephone system between the model office and the laboraory is highly desirable.

Forms

Forms needed for the operation of Serendipity, Inc. are available in a supply kit. One kit is adequate for 6 to 27 students. Forms needed by each customer are included as part of the employee's manual.

Time

Each employee of Serendipity will rotate through the office spending approximately 30 to 50 hours. Therefore, for a class of 12 to 18 students, the simulation would have to run twice and 60 to 100 hours would be required. For a class of 19 to 24 students, the simulation would have to run three times and 90 to 150 hours would be required.

Source

South-Western Publishing Company
5101 Madison road
Cincinnati, Ohio 45227

Authors

Ann Warren
Bill Radcliff

SIMULATED INSURANCE COMPANY

Type of Business

Students simulate in two areas—in the home office of the insurance company and as two student agencies. Either automobile insurance or homeowners insurance can be sold by the company with the homeowners recommended for simulations at the post-secondary level.

Within the company office, students rotate to a variety of positions. So that the agencies will be operating at all times, only one student is rotated to a central office position or to the position of banker from an agency at any given time.

Suggested Positions

Company Office
- Contact Desk
- Policy Operations
- Accounting Desk
- Underwriting
- Office Manager

Optional Company Office Positions
- Graphic Department
- Legal Department
- Travel Department
- Word Processor

Banker

Agencies—Each two students form an agency to sell insurance policies.

Data or Transaction Input

The students also serve as the customers for the agencies. However, policies may be sold to other customers who are willing to participate on a simulated basis. Driver education students, teachers, administrators, and parents can act as customers.

Equipment Needed

A business laboratory equipped for an occupational preparation offering such as clerk-typist is needed. A model office facility with a telephone system between the model office and the laboratory is highly desirable.

Forms

A variety of forms are used in the simulation. Master copies of the forms are provided in the manual and the instructor must arrange to have needed copies of forms duplicated. Some special forms can be ordered free from SAFECO Insurance Company, Seattle, Washington, 98185.

Time

Suggested simulation time, including pre- and post-simulation activities is 36 weeks, 2 periods per day. The actual amount of time can be altered to meet individual instructional situations.

Source

Washington Insurance Council
1218 Third Avenue
Seattle, Washington 98104

(Sample material can be obtained by contacting the above address)

STAR CONFECTIONERS

Type of Business

Star Confectioners is a corporation composed of a main office, candy kitchen, and branch offices that sell and distribute its candy, nuts, and supplies to candy stores throughout the United States. The instructor serves as the branch manager for one or more of the branch offices. Each branch office is operated by 5 to 8 employees. In addition one student serves as the outside world and provides customer input to initiate work in the office.

Suggested Positions

- Office Supervisor
- Order Clerk
- General Office Clerk (1 or 2)
- Shipping Clerk (1 or 2)
- Clerk-Typist (1 or 2)
- Outside World

For more than 9 students an additional branch office should be started. Audio tapes are provided for orientation purposes. They describe in detail the tasks and duties of each position in the simulation.

Data or Transaction Input

The manual for the outside world contains a list of 250 orders. The outside world representative forwards the orders to the Star Confectioners' branch office and then processes the invoices received from the branch office for payment. The orders can be varied according to the instructor's suggestions.

Equipment Needed

A business laboratory equipped for an occupational preparation offering such as clerk-typist is needed. A model office facility with a telephone system between the model office and the laboratory is highly desirable.

Forms

A kit of forms and materials for use in the operation of the simulation is available.

Time

The simulation can operate from 9 to 18 weeks for a single or a double period daily. The simulation can be adapted to any time schedule.

Source

Western Tape
P.O. Box 69
Mountain View, California 94042

Authors
Robert W. Fuller
Thelma G. Radding

TRANS-AMERICAN SUPPLY COMPANY (T.A.S.C.)

Type of Business
T.A.S.C. is a wholesale office supply company that serves its customers through three regions. Sales representatives and customers are located throughout the United States.

Suggested Positions
General Office
- Assistant Office Supervisor
- Receptionist-Mail Clerk
- Records Clerk

Customer Relations
- Supervisor
- Administrative Assistant
- Correspondence Secretary

Inventory Control
- Supervisor
- Inventory Control Clerk (2)

Sales
- Sales Representative (3)
- Correspondence Secretary (3)

Additional positions are added to the four divisions if more than 15 students are involved. If there are less than 15 students, positions are eliminated as directed in the Supervisor's Manual. For more than 25 students, two simulations should be established.

Data or Transaction Input
Input in the form of mail packs is provided with the simulation. For a simulation involving 7 to 15 students, a set of 10 mail packs is available. For a larger class, 16 to 25 students, 5 additional mail packs can be obtained. Each pack contains 150 work tasks consisting of correspondence, orders, invoices, letters, etc. Items in each mail pack are packaged loose and can be introduced into the simulation at the instructor's discretion.

Equipment Needed
A business laboratory equipped for an occupational preparation offering such as clerk-typist is needed. A model office facility with a telephone system between the model office and the laboratory is highly desirable.

Forms
The simulation includes two sets of 25 different business forms that the supervisor uses to duplicate the number of required copies for each class.

Time
The simulation activities comprise a one-semester model office program.

Source
Agency for Innovative Curriculum, Inc.
580 Sylvan Avenue
Englewood Cliffs, New Jersey 07632

Author
K. A. Mach